ALBERTA AGRICULTURE'S
ANNUAL REPORT
1986-87

TO HER HONOUR THE HONOURABLE HELEN HUNLEY
Lieutenant-Governor of the Province of Alberta

Madam:

We have the honor to submit the annual report of Alberta Agriculture for the fiscal year ended March 31, 1987.

Respectfully submitted,

PETER ELZINGA
Minister of Agriculture

SHIRLEY CRIPPS
Associate Minister of Agriculture

ALBERTA AGRICULTURE'S ANNUAL REPORT 1986-87

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Minister of Agriculture

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Associate Minister of Agriculture

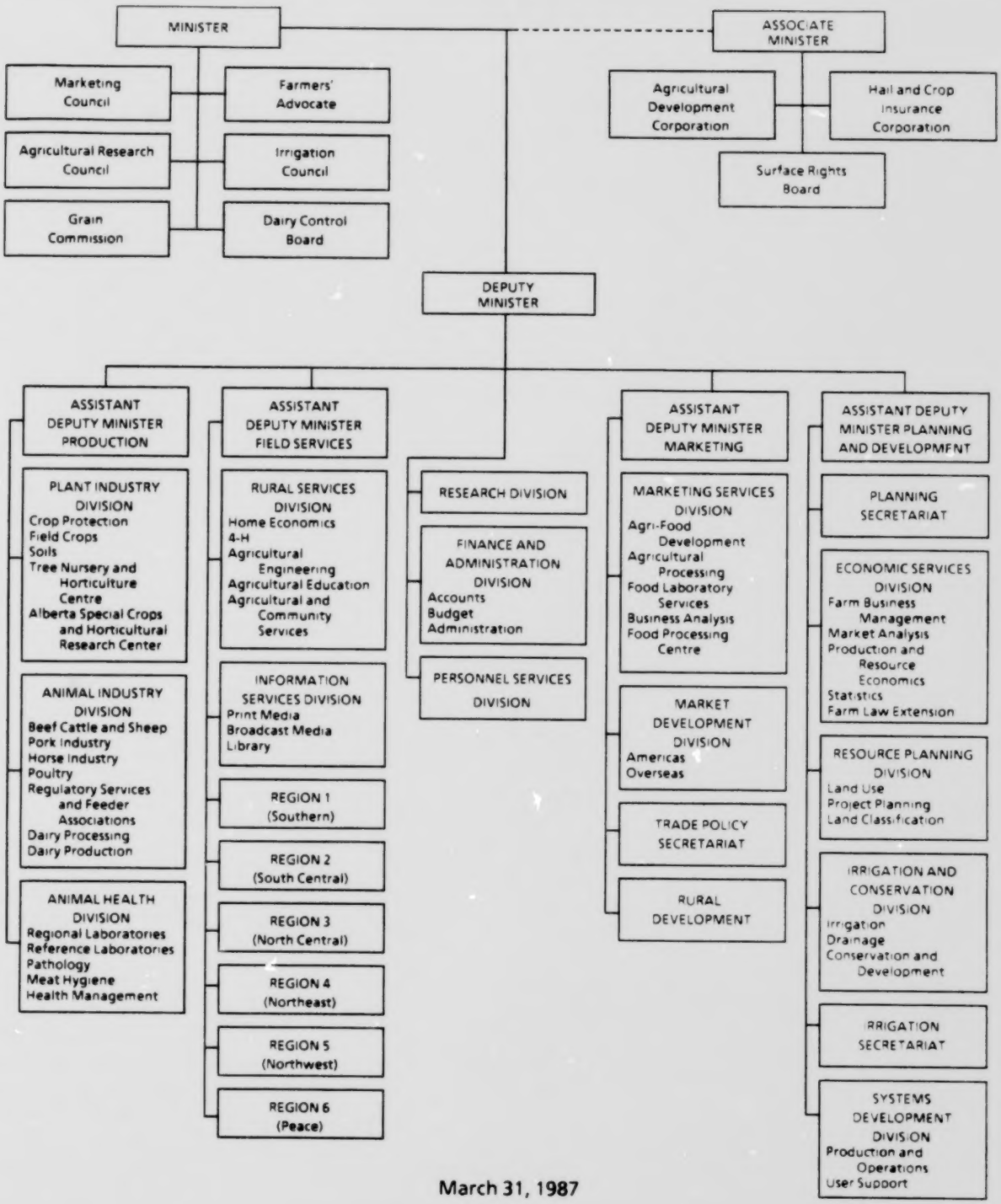
Sir and Madam:

I have the honor to submit the annual report of Alberta Agriculture for the fiscal year ended March 31, 1987.

Respectfully submitted,

H.B. McEwen
Deputy Minister

ORGANIZATIONAL CHART



March 31, 1987

HIGHLIGHTS

- A protocol agreement was signed between Alberta and the Russian Soviet Federated Socialist Republic of the USSR allowing for the sale of pedigree dairy embryos to the Republic.
- Alberta Agriculture and Alberta crushers gave technical seminars in the U.S. to encourage increased utilization of canola oil by major U.S. vegetable oil refiners.
- Alberta beef sales to Japan doubled to 350 MT, valued at $2.5 million.
- Over 150 Alberta companies were assisted by the Food Processing Development Centre.
- "Agriculture in the Classroom", an educational program for Alberta youth, was developed to increase understanding of the agricultural industry.
- The number of fatal farm accidents in Alberta decreased dramatically, down 55 per cent from previous years.
- Higher prices for livestock and poultry, lower feed grain prices and the impact of the Alberta feed grain market adjustment program resulted in an improved financial situation for livestock producers.
- In October, 1986, a quality tested hay auction was held in the Bonnyville district. This sale was the first of its kind in Alberta and was followed by two similar sales in other centres.
- Three hundred farm families participated in FAMEX, a Farming for the Future research project conducted jointly with the University of Alberta on family expenditures.
- Forty-nine Gear Up Financially courses were offered throughout the province and attended by 558 farm families.
- Research on alternative means of marketing canola through futures contracts was undertaken as part of a prairie province-wide initiative.
- The interdepartmental agricultural land base study (ALBS) and a study of Alberta's drainage requirements was completed.
- Six hundred and fifty-six land classification demands from producers wishing to be serviced by irrigation districts were received and 868 requests covering 129,152 acres were filled.
- Assessed acreage in the province's 13 irrigation districts increased by 9,602 acres.
- A province-wide conservation tillage survey was initiated to determine farmer's interests and needs.
- The first phase of the computerized agricultural land information system was initiated.
- The largest single subsurface drainage project in Alberta was completed within the St. Mary River Irrigation District.
- The planning secretariat worked on preparing appropriate strategies and developed technical details of a separate method of payment of the Crow benefit for Alberta farmers.
- To March 31, 1987, $1,137,022,411 was loaned by commercial lenders to 10,403 Alberta farmers under the Alberta farm credit stability program.
- To March 31, 1987, $103,483,784 was paid out under the feed grain market adjustment program to offset the penalty paid by 25,115 Alberta feed users resulting from the federal government's practice of paying the Crow benefit to the railways.
- A farmer-MLA committee completed a comprehensive review of crop insurance.
- A new computer program for milk recording was introduced in co-operation with Alberta dairy herd improvement services.
- A five-year agreement was signed with the University of Alberta whereby up to $185,000 will be provided annually for carrying out applied poultry research.
- A committee was appointed to review the role and mandate of the Agricultural Development Corporation (ADC).
- A number of senior department staff participated in the further development and implementation of the national agriculture strategy.
- To March 31, 1987, $38,515,206 was approved for payment to 33,433 farmers under the Alberta farm fertilizer price protection plan.

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FARM CREDIT STABILITY PROGRAM

The $2 billion Alberta farm credit stability program was implemented on August 6, 1986 with the primary purpose of stabilizing the cost of credit to Alberta farmers. The program provides nine per cent fixed-rate financing of up to $200,000 per farm family for terms of 10 to 20 years. Under the program, farmers can refinance existing debt that existed on August 5, 1986, including interest and principal in arrears, that was incurred in carrying on the farming business. A farmer may also borrow money under the program to purchase assets for the purpose of enhancing the operation's productive capacity and viability.

Lending under the Alberta farm credit stability program will cease on June 30, 1989 or when $2 billion has been loaned, whichever comes first.

In concert with Alberta Treasury, the Alberta farm credit stability centre was established under Alberta Agriculture to be responsible for daily administration, including interpretation and clarification of program criteria, and reviewing and authorizing requested loan amounts. Alberta Treasury remained responsible for the flow of funds between the government and lenders.

PROGRAM STATISTICS TO MARCH 31, 1987:

Authorizations:		
No. of active loan authorizations	12,820	
Amount authorized	$1,472,600,000	
Average loan amount	$115,000	
Loan Advances:		
No. of loan advances	10,403	
Total amount advanced	$1,137,022,411	
Average loan advance	$109,300	
Loan Categories:		
	Amount Advanced	%
Category "A" (Refinancing — same lender)	$825,992,548	72.7
Category "B" (Refinancing — other creditors)	$186,705,300	16.4
Category "C" (New acquisitions)	$124,324,563	10.9

AGRICULTURAL DEVELOPMENT CORPORATION[1]

The Agricultural Development Corporation (ADC) was established by the Agricultural Development Act (1972) to provide financial assistance to farmers and agribusinesses in the province. At March 31, 1987, the corporation's portfolio consisted of 23,750 loans totalling $1,194,873,000, as compared to an outstanding portfolio of $1,209,700,000 at March 31, 1986. This net reduction reflected a response to difficult economic circumstances in the form of farm exits and lower new lending levels.

During 1986-87, ADC provided 631 new direct loans amounting to $64,275,000. As well, the corporation guaranteed 5,497 loans, made through commercial lenders, amounting to $84,557,000. The majority of direct farm loans, $61,135,000, were made under the beginning farmer program, most of which were under the staged option feature. Alberta farm development loan program loans made up the majority of guaranteed lending, totalling $74,834,000. Another $7 million, loaned by commercial lenders to 175 producers, was guaranteed under the farm development guarantee program. This program, although scheduled to expire on February 28, 1987, was extended for a further one-year period in response to anticipated operating credit needs as a result of declining asset values and limited markets for grain inventory on hand.

The corporation approved $18,498,000 in incentives during this year, primarily to beginning farmers but also to producers in specific sectors of primary agriculture.

A total of 85 counselling assignments were completed under the enterprise counselling program. Through this program, primary producers received assistance in financial and cultural management from other farmers engaged or experienced in similar types of farming enterprises.

During 1986-87, the corporation provided $2.7 million worth of direct and guaranteed assistance to secondary processing and agricultural service businesses through its agribusiness lending programs. The interest rate charged on agribusiness direct loans was reduced to 11 per cent on the outstanding portion of each loan exceeding $500,000 effective April 1, 1986. The effective rate charged on amounts up to $500,000 remains at 12 per cent until renewal of the loan. On September 1, 1986, the agribusiness preferred lending rate was reduced to 11 per cent, with the reduced rate to be applied to all new loans and to existing loans upon renewal.

A committee was appointed to review the role and mandate of the ADC as it relates to the growth and development of agriculture in Alberta.

[1] *Agricultural Development Corporation publishes a statutory annual report which provides more detailed information than that given in this section.*

ALBERTA HAIL AND CROP INSURANCE CORPORATION[1]

The Alberta Hail and Crop Insurance Corporation was established under authority of the Hail and Crop Insurance Act (1969). This act, which became effective April 1, 1969, provided for the merger of the Alberta Hail Insurance Board and the Alberta Crop Insurance Corporation. Since the merger, the corporation has administered two separate insurance programs aimed at protecting against loss of farm crops because of adverse weather conditions: hail insurance and "all-risk" crop insurance. It has also administered the wildlife damage compensation program for the Department of Forestry, Lands and Wildlife.

Hail Insurance

Again in 1986 Alberta farmers placed near record levels of hail insurance with the corporation. While early hail storms were unusually frequent, causing above normal damage, the incidence of hail during the critical months of July and August was well below average. The result was a loss-to-premium ratio of 50.70 per cent, well below the long-term average of 73.46 per cent. This favorable experience enabled the corporation to declare a premium refund on 1986 business of 25 per cent to policyholders who did not claim for hail loss and 10 per cent of premium to those who received indemnities.

Following is a summary of business for 1986, with a comparison for 1985:

SUMMARY OF HAIL INSURANCE PROGRAM

	1986	1985
Policies	9,820	9,194
Acres insured	3,634,784	3,301,495
Risk	$254,208,578	$243,298,203
Premium	$ 16,974,010	$ 16,287,456
Indemnities	$ 8,606,569	$ 7,354,560
Loss-to-premium ratio	50.70%	45.15%

While hail insurance was also offered by several private companies, the corporation accounted for over 70 per cent of all hail insurance carried by farmers in Alberta in 1986.

All-Risk Crop Insurance

Payments for crop losses under the crop insurance program in 1986 were well below the extremely heavy losses sustained in 1984 and 1985. Even so, they were unexpectedly high considering the fact that the province's overall grain production was at, or near, record levels. Indemnities for production shortage exceeded $75 million with an additional $21,869,000 paid out under the hail endorsement to crop insurance. The main causes of loss to grain crops were:

- spring and early summer drought, mainly in southern Alberta and the Peace River area;
- a heavy grasshopper infestation in southern Alberta;
- unusually early frosts in late August and early September in central regions, causing both loss of quality and quantity;
- an exceptionally wet harvest season causing long delays and extensive loss of both quality and quantity;
- hail damage.

Approximately 600 farmers were unable to complete harvest of insured crops in the fall of 1986, necessitating harvest in the spring of 1987.

The numbers of farmers carrying all-risk insurance and acres insured reached record levels in 1986, though coverage was down somewhat from the previous year.

Following is a summary of business for 1986, together with a comparison for 1985:

[1] *Alberta Hail and Crop Insurance Corporation publishes a statutory annual report which provides more detailed information than given in this section.*

SUMMARY OF ALL-RISK INSURANCE PROGRAM

	1986	1985
Policies	25,465	23,822
Acres insured	11,210,847	10,781,227
Bee hives insured	110,596	97,437
Crop insurance coverage	$824,273,134	$870,492,195
Hail endorsement coverage	$724,097,119	$762,010,494
Premium	$132,302,920	$118,442,533
Indemnities		
Basic policy	$ 76,857,094*	$243,373,745
Hail endorsement	21,869,166	23,540,532
Total	$ 98,726,260*	$266,914,277

* *Preliminary*

Insurance was offered on fresh vegetables for the first time in 1987.

A new long-term disaster benefit was incorporated into the crop insurance program in 1986, which provided increased coverage equal to 10 per cent of area average yields in areas experiencing major crop losses in successive years. Policyholders in the southern half of the province qualified for this enhanced coverage in 1986 as a result of the major crop losses experienced in 1984 and 1985.

The coverage restoration program, implemented in 1985, remained in effect for 1986. Under this program the coverage of a crop insurance policyholder was restored to the 1984 level where it had been lowered because of claims in 1984 or 1985. This program was administered by Alberta Hail and Crop Insurance Corporation and funded by the province. Though not part of the Canada-Alberta crop insurance program, it was tied closely to it and only crop insurance policyholders benefited.

Livestock Feed Security

The hay and pasture insurance plan was revised in 1986 and renamed the livestock feed security program. This insurance, offered over a wider area of the province province in 1986, enabled farmers to insure either their hay acreage or the feed supply for their farm animals. Under the new plan participation increased sharply.

The program provided protection against loss due to drought. Dry conditions prevailed in the spring and early summer over much of the area where the insurance was offered. This reduced hay and pasture production and resulted in substantial indemnities being paid.

Following is a comparative summary of business for 1986 and 1985:

SUMMARY OF HAY AND PASTURE INSURANCE

	1986	1985
Policyholders	4,842	1,135
Acres insured	133,720	220,336
Livestock units insured	552,195	——
Risk	$98,955,290	$12,686,030
Premium	$15,782,574	$ 1,770,107
Indemnities	$21,773,560	$ 7,444,301
Loss-to-premium	137.96%	420.56%

A Joint Program

"All-risk" crop insurance and the livestock feed security program were joint programs of the federal and provincial government. The province paid all administrative costs, while Canada contributed one-half of total premiums. The remaining one-half of premiums was charged to farmers. For the insurance on grain crops, the province paid part of the farmers' share in high-risk areas.

Crop Insurance Review

During 1986 a comprehensive review of crop insurance was made by a farmer-MLA panel with the objective of recommending changes which would strengthen the crop insurance program so that it would be better able to serve the needs of Alberta farmers. "Grassroots" input was obtained through a telephone survey of 2,400 farmers, four formal hearings and 39 informal hearings held throughout the province. Extensive research was carried out at the same time. The report of the committee included recommendations for changes it considered beneficial to the crop insurance programs. There were also recommendations which, if implemented, would supplement crop insurance in providing a more comprehensive safety net for Alberta farmers.

ALBERTA GRAIN COMMISSION

A new chairman and three new commissioners were appointed to the Alberta Grain Commission in 1986 to enable the commission to continue serving the needs of Alberta's grain and oilseed industry.

The commission continued its committment to three basic aims:

- the promotion of less regulation and more logic in the grain and oilseed industry in Alberta;
- an increased level of crop diversification; and
- increased use of Alberta grain and oilseed products in both domestic and foreign markets.

The commission used these objectives as criteria for evaluating issues of interest to our industry.

The Alberta Grain Commission continued to maintain a close liaison with individual farmers, farm groups, grain merchants, grain transporters, the Canadian Grain Commission, the Canadian Wheat Board and the Winnipeg Commodity Exchange.

During 1986 the commission was deeply involved in the issues arising from declining grain and oilseed prices. Eligibility problems with the western grain stabilization plan and farm income support were two of the issues which the commission worked to improve.

The commission, concerned about domestic pricing of cereal grains, presented Alberta's position on wheat pricing to the committee on domestic wheat pricing. Contact was renewed with wheat producers in central Canada in order to understand the situation outside the Canadian Wheat Board designated area with respect to wheat production. Studies were also initiated related to the European Economic Community's agricultural policy and its effect on world trading patterns.

Issues related to transportation continued to be of paramount interest to the commission. Accordingly, a brief was presented to the Canadian Transport Commission in support of lower rail freight rates. In addition, the commission strongly supported a change in the method of payment of freight subsidies under The Western Grain Transportation Act and emphasized this issue whenever possible.

The Alberta Grain Commission continued its contributions toward correcting imperfections in our grain and oilseed marketing system. The use of producer cars, inefficiencies in marketing oats and the domestic pricing policies for cereal grains were the areas studied.

The Alberta Grain Commission continued to operate its toll-free grain price information line and published two weekly reports concerning west coast grain traffic and the reported feed grain prices for Alberta feed mills. The commission also continued the administration of the small grain dealers guarantee program.

FARMERS' ADVOCATE OF ALBERTA[1]

The Office of the Farmers' Advocate of Alberta reviewed a variety of enquiries and concerns, covering every facet of the agricultural community.

ALBERTA DAIRY CONTROL BOARD

The Dairy Board, operating under The Dairy Board Act, met its responsibilities in the administration of fluid milk, industrial milk and cream sectors. These responsibilities included the licensing of dairy

[1] *A comprehensive annual report issued by the Farmers' Advocate Office is available through the Minister of Agriculture or directly from the Farmers' Advocate of Alberta.*

producers, processors and distributors of fluid products; setting and adjusting fluid milk quotas; regulating time and payment to producers; and in general governing the sale of milk in Alberta.

The board was responsible for the operation of the Alberta milk market sharing plan, an industrial milk plan entered into by federal and provincial authorities. The board was a member of the Canadian milk supply management committee, a body responsible for the development of the national dairy policy.

The number of active dairy producers — fluid milk, industrial milk and cream — as of March 31, 1987 totalled 2,381. Total provincial production was up by 4.65 per cent from the previous fiscal year. Fluid milk production increased by 5.57 per cent, industrial milk production increased by 1.62 per cent and cream production decreased by 9.55 per cent. Fluid milk sales increased by 0.84 per cent from the previous year.

The Board operated a fluid milk equalization pool for Alberta fluid milk producers. This plan successfully completed its 12th year of operation and enabled producers to share in the sale of fluid milk returns regardless of location or source of sales.

No additional producers were accepted under the graduated entry program. A total of 930 industrial producers have entered the fluid sector since the start of the graduated entry program in 1975.

Producers' financial returns for fluid milk, industrial milk and farm separated cream varied during the year. Fluid milk prices decreased $0.98 per hectolitre May 1986, October 1986 and December 1986, ending the year at $48.13 per hectolitre. Industrial milk advanced $0.80 per hectolitre August 1, 1986 ending the fiscal year at $39.68 per hectolitre. Churning cream prices also increased on August 1, 1986.

Board staff maintained an audit program of all fluid processors together with inspections to maintain and ensure compliance with regulations issued under the authority of The Alberta Dairy Board Act.

SURFACE RIGHTS BOARD[1]

The Surface Rights Board, a quasi-judicial board established under The Surface Rights Act, granted operators the right to enter on and use the surface of land for mineral recovery operations and for the construction and operation of power transmission lines, pipelines and telephone lines, where the operator had been unable to acquire the necessary right by consent of the owner or occupant of that land; and held hearings, in those cases where a private agreement could not be reached, to determine the compensation payable by the operator and the person entitled to receive the compensation.

The board held hearings with respect to damage disputes and requests for review of annual compensation under board compensation orders and surface leases.

The board issued written decisions to the parties concerned as required by The Administrative Procedures Act in all cases where a hearing was held and a decision required. The board issued orders granting right of entry, terminating right of entry, fixing compensation, amending or varying compensation on reviews, and various incidental orders, and continued to assist in the recovery of money owed by an operator to any person under board orders or surface leases.

The Expropriation Act was administered by the board with respect to expropriation of land authorized under or pursuant to section 31 of The Water Resources Act and The Hydro and Electric Energy Act.

[1]*The Surface Rights Board presents a detailed annual report to the Minister of Agriculture each year.*

AGRICULTURAL PRODUCTS MARKETING COUNCIL

The council was responsible for the administration of The Marketing of Agricultural Products Act. Pursuant to the Act, the Council facilitated the establishment and supervised the operation of producer marketing boards and commissions. Eight marketing boards and three commissions operated under the Act: Alberta Chicken Producers' Marketing Board, Alberta Cattle Commission, Alberta Egg and Fowl Marketing Board, Alberta Hatching Egg Marketing Board, Alberta Pork Producers' Marketing Board, Alberta Potato Commission, Alberta Sheep and Wool Commission, Alberta Sugar Beet Growers' Marketing Board, Alberta Turkey Growers' Marketing Board, Alberta Fresh Vegetable Marketing Board and Alberta Vegetable Growers' Marketing Board.

The role of Alberta's marketing boards and commissions became more prominent as producers increasingly viewed these organizations as a means of improving their economic well-being in light of current economic conditions.

The Alberta Chicken Producers' Marketing Board amended their regulations and offered roaster quota to 61 growers. Efforts were also undertaken to amalgamate all chicken production into a single chicken quota. Alberta chicken growers, although not participants in the national Canadian Chicken Marketing Agency, had their provincial market allocation reduced for the third consecutive year by the agency. The Canadian Chicken Marketing Agency, which has jurisdiction in the rest of Canada, sets provincial quota allocations for the other provinces.

The Alberta Cattle Commission became a participant in the national tripartite stabilization agreement and became heavily involved in efforts to make this national plan functional.

The Alberta Egg and Fowl Marketing Board, met with other provincial boards to discuss provincial pricing alternatives and the distribution of production beyond the base amount indicated in the federal-provincial agreement. Presently this agreement, which is administered by the Canadian Egg Marketing Agency, unduly limits egg production in Alberta.

The Alberta Hatching Egg Marketing Board experienced a relatively healthy financial year with improved prices and reduced feed costs being the norm. The board also received approval to join the national Canadian Broiler Hatching Egg Marketing Agency.

The Alberta Pork Producers' Marketing Board entered into a long-term sales agreement with their two major processors but had to move large volumes of Alberta hogs to outside markets when labor strikes developed at the two plants.

Potato producers continued to review the establishment of a marketing board as a means of rectifying the industry's marketing problems. The Alberta Potato Commission carried on with its promotional and research activities on behalf of producers.

The Alberta Sheep and Wool Commission continued to direct its activities toward expanding the province's sheep industry.

The Alberta Sugar Beet Growers' Marketing Board was able to reach an acceptable agreement with B.C. Sugar, their only processor, and sugar beets were grown during 1986, unlike the situation in 1985. A national domestic stabilization program for sugar beets was negotiated.

Turkey production in Alberta, although restricted below provincial requirements by the province's participation in the national Canadian Turkey Marketing Agency, appeared favorable for the future because of strong growth in further processed products. The Alberta Turkey Growers' Marketing Board relocated their board offices in the City of Edmonton and retained their secretary-manager on a full-time basis.

The Alberta Fresh Vegetable Marketing Board had a steady financial year during 1986 as a result of increased production, steady prices and tight budgeting. The production of broccoli, green onions, radishes and cucumbers were above 1985 levels.

The Alberta Vegetable Growers' Marketing Board, faced with strong imports of processed vegetables into Alberta from central Canada, had to renegotiate certain aspects of their contracts with processors. The prospects for 1987 were expected to be about the same.

Council provided assistance to many grower associations and a number of other commodity groups

which were assessing the possibility of using the marketing legislation.

A major aspect of council's workload during the year was serving as arbiter for disputes within the industry. Council heard five appeals, four of which were between producers and the Alberta Chicken Producers' Marketing Board.

Council continued to advise marketing boards and commissions under its supervision of their responsibility not only to producers but to other sectors of the industry and the public.

WEATHER MODIFICATION PROGRAM

The five-year weather modification research program was concluded in 1985-86. The program was supported by Alberta Agriculture and operated by the Alberta Research Council with general direction from the weather modification advisory committee.

In 1986-87 the weather modification data gathered during the five-year term was compiled and a final report published. From this program a better understanding was developed with respect to the hail formation process and the effect cloud seeding has upon it. A foundation of knowledge was built making it now possible to study the effect of cloud seeding on the storm environment, and to more accurately forecast the time and location of storm development and size of hail.

While the results of the six hail storm seeding experiments give reason for optimism about the possibility of suppressing hail by cloud seeding, steps to validate this have not yet been taken.

The results of the study indicate further research is necessary before firm conclusions can be made with respect to the use of cloud seeding for hail suppression, rain augmentation and snow pack buildup.

RESEARCH DIVISION

During 1986-87, the research division continued its various activities in management of research grant programs; agricultural research planning, program and project evaluation; dissemination of research information; and co-ordination of research activities.

One of the division's main responsibilities was the administration of Farming for the Future*. This agricultural research funding program has supported over 700 research and demonstration projects since 1978 through a $40 million allocation from the Alberta Heritage Savings Trust Fund.

In 1986-87, as part of its research planning role, the division completed a five-year strategic plan for agricultural research in Alberta. Some immediate results of the strategic plan were: the renewal of Farming for the Future's mandate for a five-year term to March 31, 1992, with a $5 million annual allocation; an increased emphasis within the department on special and alternative crops research; and the introduction of legislation to establish an Alberta Agricultural Research Institute.

The institute will play an important role in Alberta's future agricultural research effort. Its objectives are to: set agricultural research policy; support long-term agricultural research; facilitate joint research between universities, governments and private industry; and co-ordinate agricultural research in Alberta.

The appointment in 1986-87 of an executive director for the research division, reporting directly to the Deputy Minister, emphasized the importance of research to the province's agricultural industry, and will facilitate the start-up of the Alberta Agricultural Research Institute.

To promote public awareness of agricultural research, the research division issued a number of publications in 1986-87 including: two bulletins describing research and demonstration projects that were published as inserts in *Country Guide* magazine; the *Farming for the Future Progress Report 1986*; and the proceedings from the 1986 Farming for the Future Research Conference. A new monthly magazine, *Research Report*, was created in 1986-87 as an additional method of communication. This magazine is written in layman's language and is designed to interest producers in the results of agricultural research and demonstrations.

The division's research co-ordination activities in 1986-87 involved direct contacts with many provincial and national research agencies and research co-ordinating bodies. The division provided various services to the 16 decision and policy making bodies of Farming for the Future. It also provided administrative services to the Alberta Agricultural Co-ordinating Committee (AACC), and to AACC's 14 advisory committees. Division staff represented AACC on the national co-ordinating body for agricultural research and participated in conducting a national inventory of agricultural research.

The executive director of the division represented Alberta Agriculture on the Provincial Technology and Research Advisory Committee and the Canadian Agricultural Research Council. The division's involvement with such agencies was aimed at ensuring effective co-ordination of Alberta Agriculture's research activities, and at maximizing the exchange of research findings within and between the department and other agencies.

Farming for the Future

Farming for the Future is an Alberta Heritage Savings Trust Fund program which supports agricultural research. The program is administered by the research division for the Agricultural Research Council of Alberta. In addition to overall program administration, the division also administers individual Farming for the Future projects carried out by Alberta Agriculture and Agriculture Canada research scientists.

** A more detailed and comprehensive annual progress report on Farming for the Future activities is provided annually to the Legislature through the Minister of Agriculture.*

The two funding mechanisms of Farming for the Future are: the research program and the on-farm demonstration program. Research and demonstration projects funded by Farming for the Future through these two programs are aimed at enhancing the long-term profitability of Alberta's agricultural industry.

In 1986-87, Farming for the Future completed the third and final year of its second mandate. During the year, the research program supported 95 basic and applied research projects with awards totalling $4,572,357.

Since funding began in 1978, 375 research projects have been awarded funds totalling $35.86 million.

The goal of the on-farm demonstration program is to accelerate the transfer of new technology to producers. Farmers, Alberta Agriculture staff and scientists work together to show agricultural innovations in action. This program began funding projects in 1982. Since that time, 384 on-farm demonstrations have been awarded $1.58 million. In 1986-87 alone, the program awarded over $458,665 to 133 demonstration projects.

PERSONNEL SERVICES

Personnel services administered and assisted in the development of policies and procedures related to staff and organizational development, occupational health and safety, classification and compensation, recruitment and selection, employee relations, and pay and benefits administration.

Staff and organization development provided management advisory services and human resource development co-ordination to ensure that job-related learning was available for all staff. Advice was provided in the management process, which included performance appraisal systems. Several organization development interventions were initiated.

The section processed 11 applications for education leave and 1,435 applications for training courses of which 222 were in-service, 745 out-service and 468 in-house.

Occupational health and safety concerns were investigated and resolved during the year. The section provided appropriate programs to meet the requirements of The Occupational Health and Safety Act and assisted managers, joint worksite contacts and committees in ensuring that employees had a healthy and safe workplace. In addition, St. John Ambulance First Aid re-certification courses were provided. Division staff provided support in all aspects of occupational health and safety, monitoring, and worksite inspection and investigation.

OCCUPATIONAL HEALTH & SAFETY PROGRAM STATISTICS 1986 - 1987

Total possible manhours	3,222,154
Disabling injuries	27
Medical aid cases	32
Fatalities	0
Frequency rate	8.38*
Severity rate	104.90**

*Frequency rate is the number of disabling injuries per million manhours.
**Severity rate is the number of work days lost due to disabling injuries per million manhours.

DIRECT COSTS PAID OUT BY THE WORKERS' COMPENSATION BOARD:

Current (April 1, 1986 - March 31, 1987	
Compensation of wages	11,963.33
Medical costs	5,959.98
Pension awards	0
Prior Years Cost	
Compensation of wages	17,053.58
Medical costs	44,237.33
Pension awards	368,470.73

Reporting requirements changed during year to include only employees employed pursuant to Public Service Act.

Personnel administrators provided training resources, recruitment and selection, position classification and employee relations services to the department.

Of special interest and activity was the Alberta government's first ever employee flexibility assistance program, launched to assist employees affected by the government's commitment to streamline the public service. The program consisted of three initiatives:

1) Early retirement incentive portion was well received by those eligible employees.
2) Re-employment counselling services portion helped a number of employees initiate and maintain an effective search for re-employment.
3) Employment options portion (job sharing and extended leaves of absence) created limited interest, but is available for future consideration by all employees.

The personnel committee responsible for administering the decentralized classification program for the bargaining unit and opted out and excluded classes met on a regular basis to review classification requests, as did the management sub-level review committee.

Employee relations activity continued to be administered with formal hearings and grievances at all levels of the process.

PERSONNEL SERVICES
TRANSACTIONS FOR THE PERIOD
April 1, 1986 to March 31, 1987

Number of competitions (incl. exemptions)	210
Commencements	109
Terminations	121
Transfers	86
Reclassifications	114
Classification Appeals - upheld	0
- denied	4
- pending	0
Updates	145
Position Creations (permanent and temporary)	66

PERMANENT POSITIONS AS OF APRIL 1, 1986

	Clerical	Professional	Technical	Others	Total	%
Executive	9	7	—	—	16	1.2
Production Sector	86	158	162	26	432	31.7
Field Services Sector	144	283	8	—	435	32.0
Marketing Sector	15	68	13	—	96	7.1
Research & Resource Development Sector	14	59	74	3	150	11.0
Planning, Economics & Administration Sector	77	87	7	9	180	13.2
Surface Rights Board	12	17	—	—	29	2.1
Farmers' Advocate	2	3	—	—	5	0.4
Dairy Control Board	6	3	3	—	12	0.9
Marketing Council	1	2	—	—	3	0.2
Grain Commission	1	2	—	—	3	0.2
Department totals	367	689	267	38	1361	
Percentages	27.0	50.6	19.6	2.8		100

Wage employment varied from 300 to 760 during the period.

FINANCE AND ADMINISTRATION

The finance and administration division provided centralized financial services to the department, ensuring consistency and compliance with The Financial Administration Act and related directives of Treasury Board. It was responsible for the accounting and control of expenditures and revenue, development and review of financial systems and procedures to ensure effective financial management, co-ordination of the budgetary process, and co-ordination of facilities required for the working environment of departmental staff. It accomplished this through the following branches:

Accounts Branch
The branch controlled the department's financial affairs by administering accounts payable, receivables, revenues and general accounting of the department.

Administration Branch
The branch co-ordinated the acquisition and the provision of departmental administrative facilities and services.

Budget Branch
The branch was reponsible for budget co-ordination and control, to ensure all budgeted expenditures reflect departmental programs.

Financial Review
The branch conducted internal financial reviews to ensure that control procedures are implemented in the department.

Financial Systems
The branch developed and implemented all accounting and financial management information systems within the department.

BUDGET ESTIMATES, SPECIAL WARRANTS AND EXPENDITURES CLASSIFIED BY VOTE ($000)

	1986-87 Budget Estimates	1986-87 Special Warrants	Expenditures For The Years Ending March 31 1987(a)	1986(b)
Vote 1 — Departmental Support Services (Sub Programs)				
Central Support Services	11,499	—	10,609	10,830
Planning and Economic Services	4,803	—	4,344	4,488
TOTAL VOTE 1	16,302	—	14,953	15,318
Vote 2 — Production Assistance (Sub-Programs)				
Program Support	119	—	97	116
Animal Products	150,474	—	134,603	157,234
Animal Health	8,577	—	8,316	8,153
Plant Products	37,496	—	33,684	40,886
TOTAL VOTE 2	196,666	—	176,700	206,389
Vote 3 — Marketing Assistance (Sub-Programs)				
Program Support	246	—	241	211
Marketing Services	13,787	—	12,694	18,357
Market Development	3,404	—	3,442	3,347
TOTAL VOTE 3	17,437	—	16,377	21,915
Vote 4 - Field Services (Sub-Programs)				
Program Support	174	—	158	151
Advisory Services	16,365	—	15,595	14,531
Rural Services	17,699	—	17,049	15,693
Farm Financial Management Services	2,779	—	1,686	1,090
TOTAL VOTE 4	37,017	—	34,488	31,465
Vote 5 — Research & Resource Development (Sub-Programs)				
Program Support	196	—	148	165
Research	1,328	—	1,164	4,389
Land Use Planning	3,364	—	3,284	3,125
Soil and Water Management	4,888	—	4,802	4,820
TOTAL VOTE 5	9,776	—	9,398	12,499

	1986-87 Budget Estimates	1986-87 Special Warrants	Expenditures For The Years Ending March 31 1987(a)	1986(b)
Vote 6 — Agriculture Development Lending Assistance (No Sub-Program Breakdown)				
TOTAL VOTE 6	114,224	—	114,224	101,683
Vote 7 — Hail and Crop Insurance Assistance (No Sub-Program Breakdown)				
TOTAL VOTE 7	46,148	—	37,070	52,918
Total Department	437,570	—	403,210	442,187

a) 1986-87 Preliminary — not audited
b) 1985-86 Audited figures have been restated where necessary to conform to 1987 presentation.

STATEMENT OF REVENUE FOR THE YEAR ENDED MARCH 31, 1987

	1986-87 (a)	1985-86 (b)
PAYMENTS FROM GOVERNMENT OF CANADA:		
Red Meat Stabilization		11,565,054
Miscellaneous	207,326	68,911
FEES, PERMITS AND LICENSES:		
Brand Inspection	576,300	571,298
Soil and Feed Testing	149,659	164,675
Livestock Water Program	132,415	147,204
Swine Breeding	88,570	80,634
Dairy Lab Testing	77,100	80,878
Artificial Insemination	74,736	86,474
Other	248,028	267,945
OTHER REVENUE		
REFUNDS OF EXPENDITURE:		
Previous Year Refunds	136,141	413,232
Dairy Control Act	359,940	415,950
Other	159,947	65,985
SALE OF ASSETS:	67,457	92,985
MISCELLANEOUS:	943,031	61,900
TOTAL REVENUE	3,220,650	14,083,125

a) Preliminary — not audited
b) Audited and comparable to 1987 presentation

Other revenues received from the Government of Canada, such as Agriculture Processing and Marketing Agreement and Hail and Crop Insurance are not reflected in the above figures, as they are collected and reported by Alberta Treasury.

PLANNING AND DEVELOPMENT

The planning and development sector was formed as a result of the departmental reorganization of January 3, 1987, from elements of the previous planning, economics and administration sector and the research and resource development sector. The new sector is designed to ensure close co-ordination of economic and planning services contributing to a viable agricultural community with the planning and development of agriculture's most basic resources: land, soil and water. Ongoing objectives of the sector include:

- to ensure the provision of a complete range of up-to-date applied agricultural economic services that will contribute to a viable agricultural industry.
- to provide co-ordination for applied agricultural economics in the department.
- to effectively meet the needs of the department for strategic planning, program planning, evaluation, policy analysis and policy development.
- to provide effective support service to the department in the area of EDP development, maintenance and use.
- to promote management and conservation techniques among farmers, producer groups and local authorities, in order to achieve better use of land and water resources for sustained agricultural production.
- to provide irrigation project planning, land evaluation and resource analysis support to farm organizations, local authorities and provincial agencies to assist them in the planning, allocation and development of Alberta's land and water resources for the long-term benefit of agriculture in the province.
- to support the activities of the province's Irrigation Council in its role of administering The Irrigation Act and the irrigation rehabilitation and expansion program.

PLANNING SECRETARIAT

The Planning Secretariat continued to perform an important role in the development and evaluation of agricultural programs and policies during 1986-87. As well, the Planning Secretariat provided leadership in the development of Alberta Agriculture's strategic plan.

Grain transportation issues continued to be of prime importance during 1986-87. Emphasis was placed on the method of payment of the Crow benefit under the Western Grain Transportation Act (WGTA). Major activities included preparation of appropriate strategies and technical development of a separate method of payment for Alberta. Activities such as an evaluation of the Grain Transportation Agency's report on the review of the WGTA were also undertaken.

The economic impact of the Alberta feed grain market adjustment program (AFGMAP) was assessed during 1986-87. Field staff, feed grain merchants and producers were also surveyed with regard to their impressions about the impact of the program. The Secretariat worked with the program administrator to redesign key components of the program, the result being the introduction of the Alberta Crow benefit offset program.

Canadian grain policy issues continued to receive attention. Activities included such things as preparation of an Alberta position paper on two-price wheat, work with the Alberta Grain Commission to develop alternative payment mechanisms for special grain subsidy programs and initiation of Prairie province-wide research on alternate means of marketing canola through futures contracts.

The Planning Secretariat was active in the area of farm finance during the year. It continued to represent Alberta on the Federal-Provincial Working Group on Farm Finance, while working group activity centered on Farm Debt Review Board legislation and the Canadian rural transition program. A secretariat member was on the board of directors of the Agricultural Development Corporation (ADC). In a review of ADC, work was conducted to develop the review process and to determine research needs.

As part of the team responsible for the management of the Canada-Alberta crop insurance review process, the Planning Secretariat undertook activities in support of the review panel's needs regarding research and the public hearing process.

The Planning Secretariat provided leadership and expertise in the development of Alberta Agriculture's strategic plan. During 1986-87, Phases I and II of the strategic plan were completed. Phase I involved the preparation of an Alberta Agriculture vision statement. In Phase II, specific implications for policy development were outlined based on the vision statement. As well, the businesses, goals, objectives and strategies in support of the department's mission were described.

Research on the "Information Needs of Alberta Farmers and Farm Families: Business Management/ Home Management/Family Relations" was completed during 1986-87. Information from this study was used to prepare guidelines for departmental program planning priorities.

The secretariat continued to act as a liaison between Alberta Agriculture and native agricultural development programs.

As part of their day-to-day activities, Planning Secretariat staff prepared briefings that addressed a variety of agricultural issues in support of departmental and ministerial needs. As well, staff continued to act as consultants in a variety of roles (expert, resource, process), assisting farm organizations and government departments in strategic planning, program planning, evaluation, policy analysis and policy development.

ECONOMIC SERVICES DIVISION

The economic services division continued to place a high priority on economic, financial, legal, marketing, taxation and research issues relating to agriculture. The downturn in the agricultural industry, particularly in the grains sector, put an additional demand on the division's services. These services, which included applied economic services in commodity marketing and extension, production cost research and data analysis, legal information and advice and farm management services, were provided to farmers, government departments and agencies, farm organizations and the private sector servicing the agricultural industry.

Farm Business Management Branch

The farm business management branch continued to develop and adapt farm management technology for use by farm families in making business decisions.

The board organized a farm management training workshop for 100 "Gear Up Financially" instructors and extension staff.

Five hundred and thirty-eight farm families participated in 49 of the 10 to 12 day intensive "Gear Up Financially" courses held across the province. Approximately 275 farm families took part in the in-depth consultation portion of this program.

Several farm accounting assistance courses were held across the province. A provincial co-ordinator working in the branch supervised the program.

The branch continued its participation in the "Computer on Wheels" project (77 courses, 64 locations). The courses provided a basic understanding of computers for farmers. A course on the use of spreadsheets was introduced.

An intensive profit managers' workshop was held to provide agribusiness people and department staff the opportunity to examine and discuss new approaches to farm business analysis.

Information continued to be extended through *Agri-News* releases, radio and television interviews, and office appointments. Subjects related to computers, estate planning, tax issues, credit application, financial management, accounting and business arrangements.

Presentations were made at meetings, trade fairs, and seminars; factsheets and feature articles were prepared for publication including four *Country Guide* inserts.

Save All Management Planning Pouch Calendars were distributed; production costs were shared by private industry.

The 10th Managing Agricultural Technology For Profit conference (MATFP) was held at the Banff Centre. It was planned and co-ordinated by the branch.

Four one-day seminars were held by branch personnel to bring accountants and lawyers up-to-date on farm taxation and estate planning.

The farm planning section continued to develop machinery selection, replacement, financing and use strategies. As well, it continued to work on dairy economics, revised part of the dairy producers' home study course, and maintained liaison with the dairy division. Nine farm planning worksheets for use with the financial management initiatives program were revised for use in five of the regions.

The branch operated a booth at the World Plowing Match held in Olds, and at Agri-Trade in Red Deer and Ag Expo in Lethbridge.

This section continued to advise farmers on the economics of custom and land rental rates and machinery costs. Copies of *The Directory of Custom Operators in Alberta, Custom Rates Survey Summary, Farm Machinery Costs as a Guide to Custom Rates* were distributed.

The financial management section continued to review tax legislation, providing comments and input into the development of Alberta's position on current tax and agricultural credit issues. The section maintained liaison with Revenue Canada, and various accountants and lawyers. Materials for the farm estate planning home study course were developed and staff participated in the development of a film and video to support course materials. The staff also worked on the preparation of visual materials for video and slide tapes relating to the use of the income statement, balance sheet and cash flow statement. The Financial Fitness Package, which assisted farmers in assessing their financial position, was updated. Curriculum materials were revised to provide more support to the instructors and participants in the "Gear Up Financially" courses.

Staff updated *Sources of Credit Available in Alberta* and *Assistance Available for Alberta Farmers*. Financial record books, *Income and Expense Basic Records for Alberta Farmers* and *Prairie Provinces Farm Account Book*, were distributed. *Farm Business Incorporation* and the *Farm Employment Records* were revised.

The branch organized the seventh Agricultural Workshop for Lenders in co-operation with Olds College and bank agrologists.

The management technology section continued to publish the *CompuFarm* monthly newsletter. Accounting and record keeping software reviews with emphasis on farm management criteria were expanded. The section maintained users' manuals for department microcomputers, answered queries, set up and maintained micro-computers for the "Computers on Wheels" and "Gear Up Financially" courses, and developed worksheets, mailing lists and databases for branch publications and course participants.

The section continued to distribute Alberta Agriculture software for microcomputers, operated the remote bulletin board and updated the agricultural software directory.

Market Analysis Branch

The objective of the market analysis branch was to provide farmers and other members of the agricultural sector with timely and pertinent market-related information on which to base production and marketing decisions.

The branch continued to monitor and analyse agricultural commodity and product markets to prepare market situation and outlook reports, to interpret policy and other developments related to agricultural markets, to offer marketing extension courses and to provide market news and information.

Comprehensive reports on market prospects for the major farm commodities produced in the province were made available directly to over 4,000 farmers, members of the legislature, and others including the media. Continued emphasis was placed on distributing market analysis and outlook information through commodity association newsletters such as the *Canola Digest, The Western Barley Grower, The Alberta Cattlemen.*

Forage Seed Notes, NuKrop News and through the media in general. Specific situation and outlook reports were prepared at the request of both in-house and outside clients.

The branch worked closely with field services staff and farm organizations in extending programs to provide farmers with a more thorough understanding of the functioning of the market, and information on innovative marketing techniques.

The provincial grain and livestock outlook conference, Accent '87 - Taking Stock, was held in Edmonton in March.

The branch disseminated market news and short-term analysis through *The Weekly Livestock Market Review* and *The Weekly Market Grains and Oilseeds Review*. This was mailed to about 8,000 producers and industry clients and distributed electronically. A system for the electronic distribution of market information on a daily basis to regional offices was implemented. The monthly *Livestock Slaughter Summary* and the *Weekly Livestock and Grain Market Charts* were published. A computerized agricultural market data base, AGDATA, was maintained to facilitate internal research activities and for public use. The branch continued to work closely with the Alberta Cattle Commission on its program for the collection and dissemination of cattle market news.

Statistics Branch

The statistics branch provided Alberta's farmers, agricultural industry, farm organizations, agribusiness and government with agricultural statistical information services.

Staff members maintained liaison with the agriculture division of Statistics Canada, Agriculture Canada, farm and business organizations and other government departments. The branch completed several surveys when other sources were nonexistent or inadquate.

The Annual Statistics Yearbook was released in August. Farm Cash Receipts and Expenses for Alberta farmers were prepared and released quarterly.

A regular crop report was released every two weeks from May to October with a year-end summary published in December. A quarterly forage report was also prepared.

An annual survey of beekeepers was conducted. Branch staff also conducted a survey of vegetable and potato producers to obtain acreage and production data. In addition, a sheep survey to obtain information on production and marketing was undertaken.

A one-page factsheet presenting major provincial agricultural statistics was issued.

The branch continued its involvement in price collection and reporting by releasing reports on weekly average retail food prices for Edmonton and Calgary; weekly producer, wholesale and retail food prices; and monthly average farm input prices in Alberta.

The branch prepared and released an extensive report on agricultural products coming into Alberta and agricultural products leaving the province.

The branch continued to collect information on agricultural products after they leave the farm gate.

Branch staff conducted a specialty crop survey to obtain additional information on acreage and yields of specialty crops in Alberta.

Custom rate data and information were obtained and made available to producers across the province.

Agricultural Law Program

The agricultural law program assisted the agriculture community in the interpretation of agriculture laws. Information was disseminated through the media, prepared opinions, letters, telephone calls, personal interviews, publications and farm lectures.

In 1986-87 staff interpreted a new vocabulary of terms associated with each new crop introduced into Alberta; determined the division of benefits for landlords and tenants under the federal and provincial assistance programs; and reviewed with farmers their position in relation to the lender's securities.

Farm law seminars were the most effective way of keeping the farming public informed. One hundred and fifty-four seminars were held throughout the province with a total attendance of approximately 7,100.

Interviews with farm magazines, radio and television were given.

Current court cases, which help in interpreting changes in agricultural legislation and farm law, were continually monitored by staff, occupying about 20 per cent of their time.

During the year the program handled 4,062 telephone calls and opinions, 254 government calls and opinions, and 652 office interviews.

Production and Resource Economics Branch

The production and resource economics branch continued to provide farmers in particular and the agricultural sector in general with timely information on the economics of production and resource development and use in Alberta. The production section continued its emphasis on crop and livestock case studies, while the resource section completed the economic component of the interdepartmental agricultural land base study (ALBS) and shifted emphasis to conservation and resource use.

The production section completed the second year of its three-year study of the economics of cow-calf production in Alberta.

The branch continued to monitor the fluid milk production costs for the Public Utilities Board (PUB) and assisted the board in establishing monthly fluid milk prices. In the annual dairy economics study production costs for fluid milk in Alberta were monitored.

The returns and costs of sheep and hog production in the province were surveyed. A hog production model was developed for quarterly and annual estimates of hog production costs and returns.

At the request of the Alberta Egg Producers' Marketing Board and the Alberta Turkey Marketing Board, studies were completed to determine the economics of turkey and egg production. The branch also conducted surveys for hatching egg production and heavy turkey production.

Two hundred producers from throughout the province participated in the 1986 crop case study. This study provided participants and field staff with timely cost and return information for planning cropping activities and making production related decisions.

The branch continued to provide its clients with data on transportation costs, policy developments and freight rate changes for a wide variety of agricultural commodities transported by rail, truck and air. A quarterly newsletter, *Agriculture Transportation*, was published.

Statutory Rates on Trucking, an interdepartmental report prepared in co-operation with Alberta Economic Development and Alberta Transportation, was published. A second report, on farm trucking costs for hauling grain and grain delivery patterns, was prepared in collaboration with the Alberta Wheat Pool. *A Review of the Emergency Grain Shipping Exercise using ATL Facilities* was completed for Alberta Terminals Ltd. The 1986-87 issue of the booklet, *Statutory Grain Freight Rates from Alberta to Vancouver/Prince Rupert and Thunder Bay* was published.

The branch assisted the Canadian Cattlemen's Association in preparing its case for presentation at the United States International Trade Commission investigation of alleged unfair subsidization of the Canadian beef cattle industry.

Staff were also involved in developing a database for the tripartite stabilization program.

In 1986 a study entitled *The Effects of Hail and Drought on Major Crops in Alberta* was completed for the Alberta Research Council.

There was continued involvement in various committees which developed background information for departmental papers on free trade. Staff also analyzed applications from potential immigrant entrepreneurs and prepared evaluations of the applications for Alberta Manpower.

The resource section completed its involvement in the interdepartmental agricultural land base study (ALBS), and assisted with Alberta's drainage requirements study, commissioned by the Alberta Water Resources Commission.

The report on *The Economic Implications of Water Erosion in Alberta*, a joint study with Agriculture

Canada, was published. A joint study with the engineering branch was completed on water treatment equipment and cost. A *Water Treatment Equipment Catalogue* was prepared.

Draft reports were prepared on the use of *Grassed Waterways for Drainage Under Erosive Conditions* and *Continuous Cropping of Winter Wheat for Soil Conservation*. A study of conservation farming systems on Brown Soils was initiated in region 1, and work continued on a joint salinity control study in region 1.

The report, *The On-Farm Economic and Financial Feasibility of Irrigation*, was published. Municipal Affairs was assisted in revising the *Farmland Assessment Manual*. A study on the linkages between irrigation, livestock production and feed production was initiated.

The Prairie Farm Rehabilitation Administration Input-Output model was examined for eventual analysis of regional and/or enterprise relationships.

Up-to-date information on agricultural real estate transactions and values was provided through quarterly real estate reports.

An update of the *Economic Implications of Power Lines on Farming Operations in Alberta* was prepared for several powerline farm groups.

The branch undertook an extensive evaluation of several aspects of the Alberta hail and crop insurance program, and four research reports were prepared.

RESOURCE PLANNING DIVISION

During 1986-87 the resource planning division continued to support planning activities related to the allocation, development, management and conservation of Alberta's land and water resources for the long-term benefit of the agricultural sector.

Division activities, as carried out by its three branches, are outlined in the following reports of the land use branch, the land classification branch and the project planning branch.

Land Use Branch

In 1986-87, the land use branch continued to provide leadership in the development and co-ordination of departmental and interdepartmental programs and policies involving both public and private land use planning, water resource management planning, land reclamation and general resource inventory.

Land use branch staff completed work on two interdepartmental studies on land and water resource development: *Agricultural Land Base Study: Opportunities for the Future*, and *An Inventory of Alberta's Drainage Requirements*. A series of technical background reports were produced for each of these studies.

The computerized soil inventory database for management and planning (SIDMAP) system project, a joint effort of Alberta Agriculture and Agriculture Canada, continued in its third year to provide land resource data to clients in government, university and private industry. Additional data sources were utilized to enhance the branch's analytic capability in land and water resource evaluation. SIDMAP data was used in program planning and assessment, and resource allocation decisions both on a provincial and regional basis.

Through the acquisition of personal computer based geographic information software, the branch gained new capability in display and map analysis of thematic data.

Work continued on three land use planning projects: a rural land use monitoring program to assess the ongoing losses and gains of agricultural land in the province, a study of the impact on agriculture of small landholdings of between 20 and 80 acres, and a review of current

general municipal plans and land use bylaws.

During the year the branch helped to initiate and co-ordinate economic research related to land and water resource management and planning. Work continued on determining viable on-farm soil conservation management practices and on assessing the risk factors associated with irrigation development. Background work was initiated to study the definition and land use implications of better and marginal agricultural lands.

In 1986-87, branch staff were also involved in interdepartmental committee work related to water management planning, development of a land capability classification system, land reclamation, agricultural development on native lands, evaluation of peatlands development, the North American waterfowl management plan, and the integrated resource planning process (IRP). IRP projects initiated during the past year included: southern, central, northeast and Peace River regional plans; east Peace, Grande Prairie County West, Eden Valley and Milk River Ridge sub-regional plans.

The following referrals were handled by the branch in 1986-87:

Pipelines	8
Electrical transmission lines	18
Environmental impact assessments	3
Annexations	16
Sanitary landfills	17

Land Classification Branch

During the year the land classification branch continued to pursue its mandate to carry out, supervise and co-ordinate all land irrigability classifications in Alberta. According to The Irrigation Act, land must be classified as suitable for irrigation before it can be added to irrigation district rolls.

In 1986-87 particularly heavy demand developed for land classification from producers wishing to be serviced by irrigation districts. In total 656 requests were received and 868 requests were completed covering 129,152 acres. A backlog of 706 requests remained on hand at the end of the year.

On behalf of the Alberta Water Resources Commission, the branch contracted out land classification on 634,000 acres in southern Alberta. The classification of an additional 75,000 acres adjacent to the Three Rivers Reservoir were contracted out on behalf of Alberta Environment. A grant was provided to the Alberta Research Council to complete the soil survey of Flagstaff county.

A saline/wetland map and the report of a 70,000-acre block in the Eastern Irrigation District was completed. During the year, branch staff were involved with developing methods of identifying salt affected lands in Alberta, made contributions to development of a land capability classification system, participated in developing a western Canadian land irrigability rating system, evaluated lands held under The Irrigation Land Manager Act and initiated the development of a revised land irrigability map of southern Alberta.

The soils laboratory, located in Lethbridge, analysed or contracted out the analyses of approximately 34,000 soil and water samples. Staff assisted other branches and the Prairie Farm Rehabilitation Administration (PFRA) in sample preparation and quality control. Development of and monitoring quality control in private laboratories were important functions for soil laboratory staff during the year.

The branch continued to conduct research related to verification of existing land irrigability standards. Research projects included irrigation suitability of solonetzic soils, water movement and moisture retention in shallow bedrock soils, moisture retention characteristics of coarse-textured soils and reclamation of saline areas following canal rehabilitation. A research paper suggesting changes in the classification of solonetzic soils was prepared.

Project Planning Branch

During 1986-87, the project planning branch continued to support the Irrigation Council and the province's 13 irrigation districts through the provision of technical assistance, research, project evaluation, monitoring and planning services for irrigation rehabilitation and irrigation expansion projects.

The executive summary report of the general rehabilitation plans for the 13 irrigation districts was

completed and submitted to the Irrigation Council. Feasibility studies for 11 irrigation projects and three reservoirs were also completed for various irrigation districts.

A review of and inputs to special project reports for the Acadia Valley water supply, the Peigan Indian Reserve irrigation feasibility, and the water management in the South Saskatchewan River Basin, were undertaken by the branch. Preliminary irrigation development feasibility studies were undertaken in the north Foremost and south Macleod areas.

On behalf of the Irrigation Council, 71 proposals for irrigation capital works projects were evaluated, and construction of 108 such projects were monitored. The project planning branch also completed approximately 350 right-of-way easements and transfers for the irrigation districts.

In co-operation with Alberta Environment and PFRA, the project planning branch provided technical and financial support to a study to examine the feasibility of irrigating a 15,000-acre block on the Blackfoot Indian Reserve near Shouldice.

Financial assistance was provided to three of the smaller irrigation districts to conclude the department's initiative to fully privatize engineering design and construction supervision services.

Priority was again given to research and evaluation studies, with the major topics of study including: deflection in buried irrigation pipelines; water conveyance efficiencies; automation of downstream water control structures; water-powered trash screen model testing; cracking of reinforced concrete lining and the evaluation of gravel armour on irrigation canals.

Branch staff were involved in a review of the irrigation design criteria standards to ensure that the irrigation districts are using appropriate criteria in designing the rehabilitation of their distribution systems.

The aerial photo mapping program activities included contour mapping of Steinback reservoir and a 15,000-acre block on the Blackfoot Indian Reserve, and the provision of assistance to other government agencies and the private sector requiring aerial photo mapping information.

In co-operation with Lethbridge Community College and the Alberta Irrigation Projects Association, extension education was provided through preparation, co-ordination and presentation of a one-week level II ditchriders training course and a three-day board of directors/managers seminar.

An upgraded version of the *Water Hauler's Bulletin*, a newsletter presenting irrigation construction, management and operation, and research results, continued to be published by the branch and distributed to approximately 500 readers.

Drafting, contract administration and systems analyst support continued to be provided to other irrigation related branches of the department.

IRRIGATION AND CONSERVATION DIVISION

During 1986-87 the irrigation and conservation division continued to provide farmers and agricultural agencies with programs and services aimed at soil and water management and conservation. This was consistent with the department's objective of ensuring that Alberta's land, soil and water resources — particularly farm land and irrigation water — were efficiently managed for present use and for long-term sustainable agriculture.

The division's programs were carried out by three branches:

Conservation and development branch — in its third year of operation, developed, promoted and implemented an increased number of on-farm soil and water management projects with significant emphasis on technology transfer. Farmer and agency subscription, particularly by local government agricultural service

boards, continued to increase.

Drainage branch — provided technical and research expertise in groundwater investigation, sub-surface drainage, seepage control and land reclamation. Branch staff continued to provide consultation to irrigation districts on canal rehabilitation projects, conducted major drainage installations and were involved in drainage basin studies across the province in collaboration with other government departments.

Irrigation branch — continued to provide assistance for the installation and upgrading of efficient farm irrigation systems. Consultation and design support services were provided for both sprinkler and surface systems as well as for power source comparisons and conversions.

Irrigation management technology was provided to both producers and equipment suppliers. The major areas of activity were in system upgrading, irrigation feasibility studies and drainage installations — all up some 20 per cent over the previous year.

During 1986-87, division staff participated in a number of reviews and studies of land, soil and water resource management and utilization. Major projects included the interdepartmental land base study, drainage basin reviews and the report and recommendations of the Water Resources Commission of the South Saskatchewan River Basin study. Work was done on developing proposals for federal-provincial agreements on soil and water conservation and development programs in Alberta. The division continued to co-ordinate the drought committee which submitted recommendations to the ministers of agriculture and environment. Division staff were involved in several conferences, workshops and training sessions dealing with soil conservation, drainage and irrigation management. Staff's primary role at these conferences was to provide guidance and technical information to producers, staff and project managers.

During the year, the division continued to co-ordinate work projects with Prairie Farm Rehabilitation Administration (PFRA) and Alberta Environment. Dryland salinity investigation services and dugout testing programs previously provided through Alberta Environment were assumed by the conservation and development branch. A significant increase in soil conservation projects were promoted and undertaken by a larger number of agricultural services boards.

Technical assistance provided to producers again surpassed the high levels of the previous year. Producer requests were up in the range of 15 to 20 per cent in soil conservation, irrigation feasibility investigations, drainage improvement and there was a marked increase in on-farm water development projects.

In 1986, assessed acreage in the province's 13 irrigation districts increased from 1,143,349 to 1,152,951 — an increase of 9,602 acres. "Under-irrigation" was not as prevalent in 1986 due to more seasonal rainfall and improved system and water supply conditions. On-farm system upgrading continued despite reduced price levels for most irrigated crops.

The irrigation branch provided planning consultation and technical assistance which resulted in some $40 million of on-farm capital expenditures by producers for system improvements, land development and drainage projects.

Conservation and Development Branch

During 1986-87, the conservation and development branch continued to develop, promote, and transfer on-farm soil and water conservation and management technology to Alberta's agricultural industry.

Extension and demonstration were a major focus of branch activities. Staff provided information on soil conservation and farm water management to a variety of audiences by participating in producer meetings, publishing factsheets, newsletters and scientific articles, and arranging short courses. Where possible, applied research projects were performed as demonstration projects to facilitate technology transfer.

The branch continued to assist agricultural service boards in delivering resource conservation projects under the soil conservation area program (SCAP) and the farmland development and reclamation program (FDRP).

Other initiatives and projects were undertaken by agricultural service boards with increased emphasis on mapping and identification of soil degradation problems. The Soil Conservation Act was reviewed and amendments were drafted for later consideration to

accommodate requests for changes identified by municipalities.

Wind erosion continued to be a serious problem and affected about 1,000,000 acres in southern and south-central Alberta. Growing season moisture stress, crop pests, poor fall growing conditions for winter crops and excessive tillage all contributed to the problem. Serious erosion (loss of 20 to 50 tons/acre) occurred on approximately 200,000 acres, and very serious erosion (loss of 100 tons/acre plus) occurred on 25,000 acres. Branch staff worked with local municipalities to implement emergency controls and to enforce The Soil Conservation Act. Staff also conducted a survey of erosion on the lease land on the Blood Indian reserve, and prepared a report recommending appropriate action.

A province-wide conservation tillage survey was initiated to determine farmer interests and needs. Over half of the 1,000 questionnaires distributed were returned.

A conservation manual was initiated by the branch to assist department field services and agricultural service board staff with soil conservation and management. The manual, a series of eight units, will provide an up-to-date compendium of background information, techniques and public program guidelines. A producer-oriented feature film about farm water management was also initiated.

In co-operation with Environment Canada, the branch implemented a 24-hour farm weather line for producers during the growing season. The response in 1986-87 was good; 75,000 calls were made to the four regional weather line locations of Grande Prairie, Edmonton, Calgary and Lethbridge. The *AgWx Weather Bulletin* was again published and distributed. A *Climate Rating for Arable Agriculture* report was completed, providing a key component of a new capability classification for arable agriculture in Alberta. Press releases and radio tapes on recent weather and its influence on agriculture were issued.

The branch chaired the drought monitoring committee and submitted recommendations to government through the ministers of agriculture and environment.

Dugout testing was provided to farmers to ensure good site location and that soils were suitable. Staff investigated 121 proposed sites and 66 per cent of them were found to be suitable.

The dryland salinity investigation service (DSIS) continued to be effective in co-ordinating the activities of Alberta Agriculture and PFRA in co-operation with the Dryland Salinity Control Association. Demand for the service was province-wide. A survey in region 1 indicated that 75 per cent of the farmers had implemented the recommended controls. A new dryland salinity extension bulletin, *Dryland Saline Seep Control*, was also completed.

The branch provided assistance to Alberta Public Safety Services (APSS), through the soil conservation area program (SCAP) for landowners affected by silting and erosion due to the flood of July 1986.

Technical advice and predictive capabilities in the planning of water quality improvements and irrigation expansion along the Etzikom Coulee were provided to Alberta Environment, Ducks Unlimited and the farming public. Monitoring of water quality along the Verdigris system and assessing the impact of discharges on the Milk River salt load allowed the branch to make recommendations and progress reports on reservoir and irrigation supply management to the St. Mary River Irrigation District. Staff were involved in more than 40 research, development and demonstration projects throughout the province. Projects concentrated on soil conservation and on-farm water management.

The conservation and development branch organized and funded the fifth annual Western Provinces Conference for the Rationalization of Soil and Water Research and Management.

Committee participation and liaison with Alberta Environment, Agriculture Canada and local municipalities continued to be a major activity.

The branch participated with the planning and development sector in implementing the first phase of the computerized agricultural land information system. Production applications of mapping, project management and engineering drafting were initiated to improve delivery of programs and projects.

Drainage Branch

During 1986-87, the drainage branch focused on programs related to the development and testing of methods for reclaiming agricultural soils with excess

salinity and surface and subsurface water. Major program areas included: subsurface drainage, groundwater investigation, irrigation and dryland salinity control, surface and subsurface water quality monitoring, irrigation canal seepage control, and testing of alternate energy (solar and wind) pumping systems for agricultural water supply.

Successful installation of the largest single subsurface drainage project in Alberta was completed within the St. Mary River Irrigation District near Bow Island. A Farming for the Future study was begun to compare the technical and economic effectiveness of this method of canal seepage control compared to other systems. A Farming for the Future study conducted in the Viking area with the conservation and development branch was the first in central Alberta to fully evaluate salinity causes and simultaneously compare continuous cropping and subsurface drainage for reclamation. Additional groundwater research was carried out to identify more easily sources of salts causing dryland salinity problems throughout Alberta.

A slough drainage and consolidation research project near Rycroft, which involved the departments of Agriculture, Environment, Forestry, Lands and Wildlife and the Municipal District of Spirit River, continued to demonstrate the practical possibilities of managing drainage water on the farm to the benefit of both agriculture and wildlife. The project involved the drainage and consolidation of about 40 acres of temporary sloughs into a constructed pond designed to mitigate the loss of habitat resulting from the slough drainage.

The drainage branch continued the groundwater study in the Milk River basin for the fifth year to evaluate the impact irrigation development would have on the quality of water in the Milk River. Alberta Environment used information generated from this study in their negotiations with Montana regarding the proposed dam construction and subsequent irrigation development in the basin. Additional investigations were carried out to evaluate reasons for the decline of available water in the Milk River aquifer.

Extension activities were an important part of drainage branch activities in 1986-87. A report was prepared detailing the results of a province-wide survey of farmers with subsurface drainage projects. The report was circulated throughout Alberta and North America, with a follow up factsheet prepared and distributed to district offices and farmers in Alberta. The branch also participated at the Lethbridge Ag Expo, and published papers and bulletins in various technical journals and department publications.

Direct assistance to farmers, irrigation districts and other department branches increased slightly during the 1986-87 year.

Irrigation Branch

The irrigation branch assisted farmers and various agencies in developing and managing soil and water resources to improve the efficiency and productivity of irrigated agriculture.

An increased number of water user requests were received and responded to by branch staff concerning the adequacy of installed irrigation systems and their operation towards effective water management. The season also showed an increased interest from the farming community in the acquisition of water licensing and rights for non-irrigated land. Other than the agricultural feasibility and planning program which increased about 20 per cent, the branch's programs generally dealt with as many client requests as during the previous year.

Branch staff consulted on the development and effective use of all types of farm irrigation systems especially centre pivot renozzling designs.

Irrigation systems programs were implemented through a wide range of activities. Involvement with the irrigation industry continued through participation in field days, seminars and personal contact. The pump testing program continued with emphasis on supporting the irrigation management program. Five farm irrigation factsheets were written and articles were provided to newspapers on irrigation system management.

Demand for assistance in on-farm drainage development planning increased by about 20 per cent in water user enquiries compared to the previous season.

The branch provided crop water use information on a weekly basis to the weather office for the agricultural weather line for southern Alberta. General information was provided for irrigation management and timing for

forages, cereals and oilseed crops, as well as specialty crops (peas, corn, sugar beets, potatoes). A feature film on recommended irrigation practices, called *The Right Amount*, was produced.

Extension activities focused on irrigation systems design and operation. Information was provided through short courses, seminars, field days and media releases. Staff met with producers, agencies and producer organizations to discuss irrigation planning, management and production.

IRRIGATION BRANCH 1986-87 COMPARATIVE STATISTICS

	80-81	81-82	82-83	83-84	84-85	85-86	86-87
Acres of land levelled	4,516	3,175	3,262	3,513	1,992	2,021	3,950
Sprinkler systems investigations	406	420	560	640	721	911	1,008
Water license feasibility reports	87	112	99	142	133	187	225
Irrigation management participants	185	220	213	181	158	170	171
Subsurface drainage investigations	39	29	32	161	103	175	276

IRRIGATION SECRETARIAT

The legislative authority for the Irrigation Council and the Irrigation Secretariat is The Irrigation Act, which states in part, "There shall be an Irrigation Council consisting of not less than seven members appointed during pleasure by the Lieutenant Governor in Council", and that "There shall be an Irrigation Secretariat consisting of one or more employees of the Department of Agriculture designated by the Minister.

The Irrigation Secretariat is responsible to the Council and shall carry out its functions and duties under the direction and supervision of the Council".

In 1986-87 the objectives of the Irrigation Council were to effect a sound irrigation policy for the province and to act as an advisory body on irrigation to the Minister of Agriculture. Duties as outlined in The Irrigation Act included: approval of additions or deletions of land to or from irrigation districts; approval of borrowing and rate by-laws and budgets; and approval of any expenditure for monies received by an irrigation district under an agreement with the federal or provincial government or a local authority to finance the rehabilitation of its works.

In 1986-87, the Irrigation Council administered cost sharing agreements with the 13 irrigation districts. Funds in the amount of $29,800,000 were provided from the Alberta Heritage Savings Trust Fund under the second year of a proposed five-year rehabilitation program. These funds represented 86 per cent of the aggregate, the remaining 14 per cent being provided by the districts.

The program continued to rehabilitate and modernize irrigation distribution systems in Alberta. The aims of the program were to assure irrigation users an efficient, adequate and reliable water supply, to allow for increases in irrigated acreage as water supplies permit, and to reduce or eliminate canal seepage. Effective water management and conservation of land and soil were prime objectives of the program. In fiscal 1986-87, activities undertaken through the rehabilitation program helped improve producer income and provide

opportunities for family farm development in the irrigated areas, thereby benefiting the province's overall agricultural economy.

In addition to its involvement with the rehabilitation program, the Irrigation Council, in its role as the irrigation program committee for Farming for the Future, recommended four project proposals for approval by the Agricultural Research Council for funding by Farming for the Future for 1987-88.

In 1986-87, the Council also approved expenditures of $107,000 under the irrigation rehabilitation and expansion research program. These funds were used to support research projects on monitoring solonetzic soils and a shallow bedrock study, the results of which will provide data for verification or modification of the Land Classification Standards. To improve the operation of irrigation systems, funds were also approved for research projects on downstream control of automated structures and for a water conveyance efficiency study.

In 1986-87, the Irrigation Council held 15 meetings, including two research meetings, two special meetings and a meeting with the Minister of Agriculture. Twelve of the 13 irrigation districts were toured and meetings were held with the respective boards of directors of the districts to discuss matters of mutual concern.

The council also approved the net addition of 3,060 acres to the irrigation districts assessment rolls. In addition, 74 project reports and addendums submitted under the irrigation rehabilitation cost sharing agreement were approved for a total estimated construction value of $42,500,000.

SYSTEMS DEVELOPMENT

The systems development division continued to provide an environment for optimal use of computerized systems as a means of service delivery to department clientele and staff.

Through the department's systems management group the division continued the development of its strategy, "Alberta Agriculture Programmed Access to Communications" (AAPAC). The strategy statement is to "provide an integrated network of computer devices and software offerings to assist in the delivery of services to the agricultural community". The network base has been established in all regional centres and a number of major decentralized offices throughout the province.

Computerized systems supported the dairy industry, animal health information, soil and feed testing, land and water use, crop protection, Farming for the Future, shelterbelt distribution, marketing aids, economic models, livestock regulatory systems, financial information systems, special programs and other administrative systems.

The division continued its support role in the areas of statistical analysis, mapping and graphics, procurement of hardware and software, training on the use of computers and systems, administration of the computer network and management of the electronic data processing funds.

PRODUCTION

The production sector's goal is to promote economic production of crops, livestock and poultry through the use of husbandry practices which maximize efficiency and are consistent with conservation of our land and water resources. As part of its ongoing responsibilities, the sector undertook research, generated and transferred production technology, provided services and promoted practices to assist Alberta farm families and processors maximize their financial returns.

During the year, the two branches of the dairy division were amalgamated with the animal industry division leaving the sector with three divisions — animal health, animal industry, plant industry and a central program support unit which administers the Alberta farm credit stability program and the national tripartite stabilization programs. The sector continued to be responsible for the administration of 19 pieces of legislation and operated 14 widely decentralized laboratories, research and service centres in support of the industry. The sector co-operated with and financially supported joint projects with the Faculty of Agriculture and Forestry, University of Alberta; Alberta Agricultural Colleges; the Western College of Veterinary Medicine; the Veterinary Infectious Disease Organization and the Research Branch of Agriculture Canada.

PLANT INDUSTRY DIVISION

In 1986-87 the plant industry division of Alberta Agriculture was comprised of five branches. The crop protection and soils branches were located in Edmonton, the tree nursery and horticulture centre in Oliver, field crops in Lacombe and the Alberta Horticultural Research Center in Brooks.

The division's main objective was to provide services in crop production and related sciences to Alberta growers. The activities of all five branches were geared toward providing information related to the production, nutrition and protection of plants used for food and for aesthetic purposes. Practices recommended to growers had to be compatible with long-term soil conservation, sustainable productive capacity and the safety of the entire population.

Crop Protection Branch

Branch objectives were to improve farm security and income by reducing losses caused by weeds, insects, diseases and other pests; to reduce soil erosion caused by wind and water by finding and promoting less tillage-intensive pest control methods; to develop and package technology for delivery to farmers and to improve food production, and to assist the provincial effort to diversify crop production in Alberta.

The branch administered The Weed Control Act, The Agricultural Pest Act and The Bee Act.

Staff had four technical papers published in scientific journals, as well information developed on the control of local weed problems was reported to the Expert Committee on Weeds, Western Section, and to the agriculture sector.

Staff produced and updated publications, audio-visual material and displays, all designed to achieve branch objectives.

The branch's training and extension staff provided industry and producers with technical information designed to better equip them to meet their legal responsibility to control pests.

Municipalities and hamlets and villages on the urban weed control program focused on controlling the spread of scentless chamomile.

The Weed Control Act was used extensively. The knapweed eradication program reduced infestations to isolated plants. Nodding thistle infestations were continually treated and monitored.

The problem wildlife section was responsible for supervision and co-ordination of provincial programs, extension, procurement and distribution of toxicants and control devices, and administration and implementation of portions of The Alberta Agricultural Pests Act.

Major programs were rat control, rabies suppression in skunks, prevention and control of coyote depredation of livestock and poultry, extension services for the

prevention and control of damage from field rodents and birds. Alberta was maintained essentially rat free for the 36th consecutive year.

Grasshopper populations were lower but the acreage sprayed did not change significantly. A grasshopper control assistance program rebated 50 per cent of the cost of insecticides. In 1986 $2.7 million was paid out.

The pale western cutworm infested about 28,000 hectares in Alberta in 1986, a decline of 75 per cent from the previous year.

Other insect pests, brown wheat mite, greenbug, thrips, wheat stem sawfly and alfalfa weevil mite were present within the province in varying infestations and it was necessary to treat some infestations.

Honey production in 1986 was approximately 24 million pounds, an increase of 13 per cent over the previous year.

Registration and inspection statistics were completely revised. There were 1,467 registered beekeepers operating 212,435 colonies.

One plant pathologist operated from Edmonton. In general, diseases of cereals and oilseeds were less severe than usual in all of Alberta.

Two publications on pesticides were developed and the branch participated in a study on the health effects on farmers of applying Furadan for grasshoppper control.

Soils Branch

The soils branch provided extension, research and diagnostic programs to producers, agribusiness and other government agencies. The Agricultural Soil and Feed Testing Laboratory was renamed the Agricultural Soils and Animal Nutrition Laboratory and reorganized to reflect the laboratory's change of emphasis to diagnostic analysis, methodology research, and transfer of laboratory technology to private sector laboratories.

Staff produced displays, conducted surveys, and were resource persons for numerous extension meetings. Nine technical papers were presented at scientific meetings and two factsheets were printed for use by Alberta farmers.

Soils branch staff, in co-operation with University of Alberta, municipal governments and Agriculture Canada, were involved in 14 research projects at 95 research sites.

The agricultural lime freight assistance (ALFA) program provided grants of over $315,000 to 69 applicants for transporting 11,600 tonnes of lime or marl.

The farm fertilizer price protection plan (FFPPP), which provided grants to farmers to reduce the cost of farm inputs, was extended to July 31, 1987. During the 12 months ending March 31, 1987, $17.6 million was paid on 788,661 tonnes of fertilizer to 27,647 applicants.

Soil, plant and animal feed analyses and recommendations were provided to farmers on a fee basis, and to researchers and department staff on an non-fee basis as a diagnostic service and a contribution to crop and animal research. The total number of soil, plant and animal feed samples analysed was 33,043 compared with 37,389 last year.

Field Crops Branch

Continued lower net returns from crop production placed a heavy demand on specialist staff attending producer meetings.

A new "Oat Production Manual" was published; nine other factsheets were published.

The 77 municipal co-operative seed cleaning plants processed 26 million bushels of cereals and oilseed.

Forty municipal co-op seed plants received provincial grants totalling $522,137 for the purpose of upgrading their plants. The average grant was $13,053. Three replacement co-op seed cleaning plants were built. The average costs was $1.3 million.

Alberta produced 237,130 acres of pedigreed seed by 1,078 seed growers.

Four test sites to conduct agronomic research on special crops were established in central Alberta with a Farming for the Future grant.

Ten forage associations continued to operate, thereby

increasing public awareness of improved forage production. The branch issued them grants totalling $315,000.

A new six row feed barley, "Noble", and a new spring triticale, "Wapiti", were registered.

The section continued with contractual arrangements for winter nursery plots in California and Oregon to permit the growing of two crops per year.

Provincial special crops acreage increased to 80,000 acres of 10 different crops.

The branch placed into general revenue $17,061 from royalties on seed sold and approximately $17,000 in seed sales for 1986-87. These funds were generated from the Seed Grain Breeding Program.

The seed technology school continued to draw the active interest of producers and industry.

Substantial changes to The Federal Seeds Act to be introduced July 1, 1987 resulted in many producer and industry meetings to clarify the new grade standards.

Alberta Horticultural Research Center

The Alberta Horticultural Research Center (AHRC) at Brooks was involved in province-wide extension and applied research activities relating to all areas of horticulture and irrigated specialty crops. On and off-site co-operative research projects were conducted in collaboration with personnel from Agriculture Canada, the Alberta Environmental Centre and the University of Alberta, as well as staff from the plant industry and irrigation and conservation divisions of Alberta Agriculture.

The center conducted programs related to production and marketing of greenhouse crops, nursery and ornamental crops, fruit, vegetables, potatoes and seed potatoes under the direction of the horticultural production section.

The center's special crops and agronomy section continued an active research program in the development of alternate crops e.g., dry beans. Work also continued with corn, pulses, sunflowers and new crops such as safflower.

The extension activities of AHRC personnel supported and complemented extension services provided by other Alberta Agriculture staff in regional and district offices. Staff regularly conducted, or participated in, numerous short courses and seminars held throughout the province. Staff hosted commodity oriented field days at AHRC and participated in similar field days held elsewhere. Membership and active involvement in commodity advisory groups, Agriculture Canada expert committees, and industry-based committees facilitated the dissemination of applied research information of all sectors of the horticulture industry.

Alberta Tree Nursery and Horticulture Centre

The objectives of the branch were to provide top quality shelterbelt trees for Alberta grain and livestock producers; provide top quality trees for Arbor Day and for beautifying and developing provincial parks; stimulate commercial horticultural agribusiness; provide leadership to commercial producers of greenhouse crops, vegetable crops and nursery crops through quality extension derived from production research, on-farm demonstrations and the experience of specialists; provide extension information to amateur horticulturists and guidance to the member groups of the Alberta Horticulture Association; work closely with the groups representing commercial producers - Alberta Greenhouse Growers Association, Alberta Fresh Vegetable Marketing Board, Alberta Market Garden Association and Landscape Alberta Nursery Trades Association.

The centre provided 2.4 million trees in 1986 to every county, municipal and improvement district as well as for Arbor Day observances and for planting in provincial parks.

A video, slide tape sets and extension courses for rural Albertans were produced on horticultural matters. Forty-three thousand copies of the *Alberta Horticultural Guide* were produced and distributed through department extension offices and the Alberta Horticultural Association.

The centre sponsored 28 educational courses and tours during the year. In addition there were many grower visits to the centre and specialist visits to farms. A monthly letter, *Alberta Produce Notes*, was issued.

The greenhouse specialist worked closely with the Alberta Greenhouse Growers Association and provided a full extension program of courses, tours, advice and a monthly *Alberta Greenhouse Notes*.

ANIMAL INDUSTRY DIVISION

In 1986-87, the animal industry division was comprised of seven branches: beef cattle and sheep, dairy production, dairy processing, horse industry, pork industry, poultry, and regulatory services and feeder associations.

The division was also responsible for the administration of two special programs to assist the livestock industry: the national tripartite stabilization program for red meat and the Alberta feed grain market adjustment program.

The division extended technical information to producers and agribusiness, assisted in solving problems in production and liaised with other segments of government to improve service to producers. A number of acts and regulations were administered and amendments made in concert with industry changes and needs.

The two dairy branchs provided inspection, consultation and co-ordination of services to Alberta dairy producers and processors.

The division gave support to the University of Alberta's study of the impact on the dairy industry of a multi-component testing procedure to be used as the basis of payment to producers. At the present time only milk fat is tested for the basis of payment purposes.

Beef Cattle and Sheep Branch

The beef cattle and sheep branch continued to extend technology and to provide production, marketing and financial information to the public with the objective of maintaining viable family farms and agribusiness in this province. The branch continued to be involved in research and demonstration projects to solve a variety of problems limiting animal production.

In addition, the branch continued to be heavily involved in the development of new programs to meet the needs of livestock producers resulting from the impact of market price fluctuations, adverse weather conditions, and the payment of the federal Crow benefit directly to the railways.

The administration of the Canada-Alberta livestock drought assistance program, jointly funded by the federal and provincial governments, was completed in 1986-87. A total of $17 million was paid to producers in addition to the $42.1 million reported for the initial part of the program last year. The Alberta livestock assistance program was also completed. A total of $21.3 million was paid to producers in addition to the $49 million reported last year.

The branch was involved in the development of the livestock feed security program under crop insurance which was introduced in most of the drought-prone areas of the province in 1986.

The branch also provided considerable input into the crop insurance program review.

The branch was heavily involved in the introduction and refinement of the national tripartite red meat stabilization program and was also involved in the development of a stabilization program for feeder cattle producers.

The branch continued its activities in animal reproduction, breeding, nutrition and management. It continued with record of performance (R.O.P.) programs, the bull test stations, the sheep test station,

the warble control program, the artificial insemination (AI) data program, the livestock predator indemnity program and the research and development program.

Branch staff participated in extension meetings, farm visits, media presentations, field days and responded directly to many other requests for service. In spite of commitments to the development of new programs, these activities continued to represent the major individual time commitment by branch staff.

The branch was responsible for administration of The Artificial Insemination of Domestic Animals Act. During 1986, four semen producing businesses, 47 inseminating businesses, and 107 AI technicians were licensed.

The semen evaluation laboratory handled 695 samples of semen from various species.

The AI data program introduced in 1980 continued, with a grant of $1 being paid for each insemination reported by licensed inseminating businesses. A total of 19,616 insemination records was received from participating businesses.

In 1986-87, 143 producers completed the weaning phase of the federal-provincial beef ROP program. The branch was involved in developing a federal-provincial ROP agreement to outline the program responsibilities of each government.

The branch continued to provide municipalities with technicians under the beef ROP weight supervision program. Under this program about 27,000 head of cattle on about 480 farms were weighed at a cost of $32,500 to the department.

Thirty-one private groups conducted central bull test station programs in 1986-87. Approximately 3,400 bulls were evaluated. All stations received assistance from department staff, from weight supervision to general publicity, to the calculation and distribution of results. The branch continued to supervise the operation of the Alberta Beef Cattle Test Station at Ellerslie.

Purebred enrolments in the sheep ROP program continued to increase with 70 producers enrolled during 1986. Records were processed for 7,410 lambs in 1986 as compared with 4,143 in 1985.

The Alberta sheep ROP test station completed its 12th year of operation in 1986. Twenty-eight breeders entered 238 rams in the 56 day growth test conducted at the Olds College campus. The third year of testing of wool breeds was conducted by the branch at the Olds College facility.

The department continued to share 60 per cent of the warble control program's costs with local governments; the latter were responsible for monitoring local sources of infestation and enforcing the regulations. Less than one per cent of beef carcasses were found to be infected with warble grubs in the February to May period compared to two per cent in 1985, five per cent in 1983, 14 per cent in 1980 and 44 per cent in 1968.

The branch continued responsibility for the black fly abatement program. Activities included the use of larvicides, testing and demonstration of new pesticides and methods of application to cattle and detailed monitoring of adult black fly activity.

Agricultural service boards received grants totalling $42,113 to cover 60 per cent of the costs of programs they undertook to promote improved livestock production practices in their districts. Grants were for demonstrations, field days, extension programs and purchasing equipment for loan or rental to livestock producers to encourage adoption of new production practices.

In 1986-87, 279 exhibitors received $107,431 of assistance to exhibit their stock at major international class exhibitions outside the province.

The nutrition section of the branch continued to provide nutrition and feeding management information, diagnosed the causes of nutrition-related problems and recommended changes to feeding programs to producers, veterinarians and the feed industry. At the same time the section provided support services to department staff.

The ration advisory service and feed testing program continued to provide feeding and management information directly to producers and agribusiness. In 1986-87, a total of 13,871 feed and plant samples was analysed at the agricultural soils and animal nutrition laboratory (ASAANL), compared with 17,273 in 1985-86. Of this total, 24 per cent were regular producer samples, 22 per cent were diagnostic (demonstration) samples submitted by department staff and 54 per cent

were research samples.

The number of requests for detailed ration recommendations for samples submitted to ASAANL was 233 compared with 238 in 1985-86 and 338 in 1984-85.

Interest in game ranching remained high. The branch continued to provide extension services to individuals interested in the game-ranching industry, and replied to inquiries about the status of proposed regulations being considered by the provincial government.

The livestock predator indemity program paid compensation totalling $205,000 to producers for loss of domestic livestock resulting from wild predator attacks in the 1986 calendar year.

The branch continued more than 40 projects in research and development. These are listed in the animal industry division annual report.

Dairy Production Branch

The dairy production branch conducted the dairy farm inspection program, provided resource information and material to the regional delivery system, and was responsible for developing, co-ordinating and evaluating provincial dairy extension programs. It also provided milk recording data processing and record interpretation advisory services.

A new project was initiated to evaluate the use of milk meters on milk transport vehicles for determining farm bulk tank milk volumes. Alberta's dairy industry as well as Consumer and Corporate Affairs Canada co-operated in this study.

Producer numbers in Alberta continued to decline by approximately two per cent to 1,549 as of March 31, 1987 of which 1,469 were certified and 80 met industrial milk requirements. The branch provided advisory services to industrial milk producers who have to meet certification requirements by August 1, 1987.

The dairy production home study course was updated during the year. Revised course material was provided to all existing registrants at no charge.

A film entitled *Milking Management*, which covers the basics of good milking practices, was developed.

The dairy production branch continued to develop and distribute factsheets e.g., on interpretation and use of the new dairy herd improvement program reports, and on dairy reproduction and milking equipment.

Replacement rearing, reproduction and condition scoring were featured in extension meetings conducted during the year. The Alberta Dairy Seminar attracted the largest number of producers to ever attend this three day event. This seminar was sponsored by the University of Alberta, the Alberta Milk Producers' Association and Alberta Agriculture.

The newsletter, *Alberta Dairy Producer*, was published monthly providing information on production, marketing and research matters.

Press releases were used to provide information to the general public on new programs and issues of importance to the industry.

A new computer program for milk recording was developed by the Ontario Dairy Herd Improvement Corporation under agreement with other milk recording agencies and provinces, including Alberta. The new program was introduced in co-operation with Alberta Dairy Herd Improvement Services in May 1986, after several weeks of testing.

There were 668 herds enrolled on the owner-sampler option. As of December 31, 1986, there were 42,730 cows in these herds for an average of 64 cows per herd.

In the supervised option, participation increased to 118 herds at year end. A total of 8,898 cows, for an average herd size of 75 cows, received records on this level.

Fees, as determined and administered by Alberta Dairy Herd Improvement Services, increased to $2.75 per cow for owner sampler and $9.50 per cow for supervised service.

The somatic cell counting service was expanded to 669 producers.

On December 1, 1986, responsibility for servicing the 130 Alberta dairymen on the federal ROP program was transferred to Alberta Dairy Herd Improvement Services.

Dairy farm inspection and advisory services were provided to Alberta dairy producers concerning milk quality, milk production, equipment standards and

construction or upgrading of dairy facilities. A numerical reporting system was introduced for farm inspection purposes.

In an attempt to determine the prevalence of *Streptococcus agalactiae*, one of the causative organisms of mastitis, a survey of raw milk identified the organism in 21 per cent of the milk sampled from farm bulk milk tanks.

Farm inspections totalled 3,155 and another 1,474 advisory calls were conducted. A total of 38,561 milk samples was analysed to monitor milk quality, only 4.3 per cent of these exceeded the bacteriological quality standard for raw milk.

A certificate of excellence program was established to recognize Alberta dairy producers who produced superior quality milk under well maintained and sanitary conditions throughout the year. Seventy-six producers received this award.

The number of violations under the milk grade and price program continued to decline to 248. Violations for inhibitors remained similar to the previous year. Microbiological violations, as determined by the standard plate count, declined from 156 to 120 and freezing point (added water) problems increased slightly.

Dairy Processing Branch

Dairy processing specialists inspected each dairy manufacturing plant regularly, collected samples for laboratory analysis and submitted the results to the branch, the respective plants and health officials.

Unsatisfactory reports were followed up by special inspections and detailed discussions with plant personnel.

Virtually all freshly processed milk from plants in Alberta complied with the standards, and 75.0 per cent of products sampled at processing plants met acceptable standards under "stress" testing.

Annual plant inspections were conducted jointly by provincial and federal inspectors. Alberta's provincial rating remained the highest in Canada.

ALBERTA DAIRY PLANT RATINGS COMPARED WITH THE NATIONAL RATINGS

	1984	1985	1986
National average plant score	82.3	82.7	82.6
Alberta average plant score	87.5	88.1	86.1
Lowest scoring plant in Alberta	76.7	77.4	76.4
Highest scoring plant in Alberta	98.9	99.6	99.1

The certification of dairy plant employees in Alberta continued at a high level.

Analyses of bulk milk received at Alberta dairy plants were conducted to prevent milk containing inhibitors from entering the system.

Bulk milk grader training and surveillance were maintained.

Dairy manufacturing plant licences issued in 1986 totalled 37.

Two new cheese manufacturing plants commenced operation during the year.

Surplus fluid milk focused attention on industrial milk processing, especially cheese manufacture.

An inspection program of milk pasteurization units commenced in 1986.

The cheese and cultured dairy products specialist continued to work with the cheese sector to update technology and maintain quality.

Increased emphasis was placed on cultural dairy products with the objective of improving quality. Attention was also given to processing methods and equipment.

Several collaborative studies commenced with the industry and the Food Processing Development Centre.

Horse Industry Branch

The horse industry branch provided services and programs to a wide range of horse owners and breeders in Alberta with the purpose of enhancing production methods, markets, safety procedures and horsemanship.

Although the branch provided educational opportunities for those members of the general public who use horses for sport and recreation purposes, branch programs were directed toward the breeding industry, which is considered the agricultural sector.

The breeding industry was encouraged by a strong demand for Quarter Horses from European buyers and by a large increase in development funds rebated to horsemen from the province's share of pari-mutuel taxes.

The branch provided staff or financial assistance for approximately 40 educational programs throughout the province. Staff offered extension services to horse owners through office visits, farm calls, correspondence, telephone calls, technical bulletins and articles published in horse magazines.

The horse improvement program consisted of 50 special classes for the 14 participating light horse and draft horse breeds. Alberta breeders exhibited 711 horses.

The branch assisted marketing staff and breed organizations in developing promotional and marketing projects.

The travel assistance program provided a grant to Alberta horse owners participating in national or international breed championships held outside the province. Fifty-nine breeders from six breeds made use of the program.

The branch, in co-operation with Olds College, conducted potential fertility examinations on 16 stallions.

Two horse nutrition projects were conducted and the branch continued its support of equine research at the Western College of Veterinary Medicine in Saskatoon.

The branch continued to offer provincial horse organizations a drug testing service at major horse shows. Four hundred and thirty-two horses were tested over 35 days.

Pork Industry Branch

The pork industry branch assisted Alberta producers by providing information on production technology, marketing, financial management, record keeping and use of computers for record analysis and planning. Assistance provided included a program for genetic improvement, provision of swine semen for a fee related to the cost of production, swine production home study course materials and advice, training in use of swine artificial insemination, Pork Production Handbook looseleaf information, and seminars and lectures relative to the production of pigs and pork.

The information provided was co-ordinated and delivered by branch staff, four regional swine specialists and by other extension staff. Technical factsheets were produced, mainly for the Pork Production Handbook by department resource staff, including branch staff and regional specialists. There were over 1,800 subscribers to the handbook. Branch staff and regional specialists provided a research review column and one on swine nutrition in the quarterly *Western Hog Journal*.

The 12th Annual Pork Congress was supported by the branch and attracted over 3,000 persons. Branch staff and regional specialists helped plan and resource the 1987 Alberta Pork Seminar held in Banff, and funded part of the costs. Regional swine specialists held 20 seminars in regions 1 and 2, 30 in regions 2 and 3, 13 in region 4 and 25 in regions 5 and 6.

The Alberta swine breeding centre at Leduc produced and sold both fresh and frozen swine semen domestically and for export. The amount of semen sold continued to increase. Research continued on the best methods of semen preparation and use. Seminars to instruct producers in the use of swine AI were held around the province.

Swine breeders were provided with technical service and advice in breeding stock selection and management through the swine improvement program. Information was made available through publications, seminars, extension activities and field days. The swine improvement program also provided a nationally supervised program to record reproductive performance. A farm record system for keeping physical production records was also distributed by the pork industry branch.

Staff and regional specialists designed and distributed computer spread sheets for analysis of cash flow projections, credit needs, farm records and feed rations for larger swine operations. Commercial software

programs were demonstrated and help with specific needs was provided.

Research into the use of canola meal in swine rations was concluded and reported at public meetings and in department publications. Trials demonstrating the use of transponder-controlled feeders and other new technology continued.

Activities sponsored by department staff were held in each of the regions. Swine short courses and seminars were held in all regions with increased attendance. Included were a nutrition course, a feed mill calibration course, a training program for swine workers, and workshops for agricultural lenders. Other activities included on farm demonstrations, the preparation and distribution of computer programs for swine records, and on the job training for swine workers.

National Tripartite Stabilization Program for Red Meats

Alberta became a signatory to the federal-provincial national tripartite stabilization program for red meats in January 1986. The agreement for cattle involved both a cow-calf plan and a slaughter cattle plan and made provision for a feeder cattle plan.

Enrolment results are summarized as follows:

	Alberta Enrolment		Canada Totals	
Plan	Producers	% of Production	Producers	% of Production
Cow-calf	4,073	20	5,734	18
Slaughter Cattle	3,030	75	5,780	73
Hogs	2,732	77	11,959	73
Lambs	217	30	591	33

Under the program, premiums were payable by producers, the federal government and the Alberta government, and were adjusted to a level that would cover anticipated support payments.

The total number of livestock insured include:

Class of Stock	Number Insured	Effective Period
Beef Cows	233,000	April 1, 1986 inventory
Slaughter cattle	648,000	July 1 inventory and purchases to February 28, 1987
Hogs	1,196,000	Sales July 1, 1986 to March 31, 1987
Lambs	23,000	Lambs insured June 1, 1986 to February 28, 1987

The total cost for registration of the above would be about $9.9 million to the enrolled producers, $11.3 million each to Alberta and to the Government of Canada.

Poultry Branch

The poultry branch developed and administered regulations, policies and programs relative to the industry under The Livestock and Livestock Products Act.

Poultry branch programs were related to increasing poultry production, improving efficiency and thus farm income, and keeping poultry products competitive with other protein sources.

The department contributed to the development of the University of Alberta research institute. Funding of $185,000 for applied research, to be conducted at the University of Alberta poultry unit, was provided.

All breeder flocks and hatcheries were monitored in co-operation with the animal health division, with particular emphasis on salmonella detection and reduction. This program was designed to increase agricultural production by reducing the number and kinds of disease producing organisms in poultry, especially salmonella, because of its public health significance.

Thirteen infectious laryngotracheitis (ILT) disease outbreaks were diagnosed by the regional veterinary laboratories.

Rabbit extension information packages were mailed out and individual calls were made as required.

Updated information on costs of production continued to be in demand.

Branch staff reviewed and assisted producers with loan applications from ADC and FCC. Many banks referred loan applications to the branch for review and comments.

The branch developed cost of production models for shell eggs, broiler chickens, turkeys and broiler breeders. These were continually updated to deal with requests for information in the area of economics.

The branch interpreted and imparted technical, scientific, economic and general information on poultry production to the industry and to the general public. Regional staff members made 842 farm calls, 399 poultry health program calls, handled 308 office extension enquiries, plus 293 calls to the allied trade. They attended 324 industry and departmental meetings.

Branch staff continue to work with a wide range of producers representing large commercial farms as well as acreage holders with a few birds.

Staff attended the poultry industry conference as well as annual meetings of the egg marketing board, the hatching egg board and the turkey marketing board. An information meeting of the chicken marketing board was held. The poultry service workshop was held in October, and major poultry shows were held at Calgary, Edmonton and Lloydminster.

Regulatory Services and Feeder Associations Branch

The main role of the regulatory services and feeder associations branch was the administration of certain acts and their regulations. The acts and regulations were designed to protect livestock producers by providing the following:

- brand registration
- brand inspection service
- licensing and bonding of livestock dealers and agents
- licensing of stockyards and stockyard operators
- protection of lands and agricultural products from livestock running at large
- investigations of fraudulent trade practices concerning livestock
- a means whereby members of feeder associations may acquire livestock for feeding and/or finishing.

The feeder association section administered The Feeder Associations Guarantee Act which enabled members of feeder associations to acquire livestock for feeding and/or finishing. During the year, 38 associations operated under the act.

During the fiscal year $64,278,781 worth of credit was used to purchase 135,352 cattle and 3,903 sheep. The amount outstanding as of August 31, 1986 was $29,854,330.

Under The Stray Animals Act, 1,106 head of livestock were impounded during the year. Nine hundred and fifty-eight head were returned to the rightful owners after they paid the costs of capture, transportation and maintenance. The balance, 148 head, were sold by public auction.

A total of 54 livestock markets and 54 livestock assembly stations were in operation at year end.

There were 930 livestock dealers and agents licensed during 1986 compared with 935 in 1985. Three claims were received against two livestock dealers' bonds during the year.

The number of head of cattle and horses inspected through markets and on export was 2,999,410, a decrease of 121,033 head from 1985.

Five branding demonstrations were conducted.

Alberta Feed Grain Market Adjustment Program

The purpose of this program, initiated September 1, 1985, was to offset the distortion in feed grain prices in Alberta created by the payment of the federal Crow benefit to the railways. The distortion was estimated to average $21 per tonne.

A summary of the registration, inspections and payments follows.

REGISTRATION, INSPECTIONS AND PAYMENTS DURING THE 1986-87 FISCAL YEAR

	1986-87 fiscal year	Total Sept. 1/85 to Mar. 31/87
Feed users registered	3,108	25,115
Feed grain merchants registered	36	255
Number of farm inspections	2,896	7,003
Payments		
Certificate option	46,598,641	72,978,743
Farm fed option	27,020,805	30,505,041
Total	73,619,446	103,483,784

Under the program, grain producers received $21 per tonne on grain feed on the farm or sold to livestock feeders for feeding in Alberta. This $21 represents a portion of the normal selling price. In this manner the program offsets the penalty paid by Alberta livestock feeders that results from the federal government's practice of paying the Crow benefit to the railways.

The feed grain market adjustment program is now known as the Alberta Crow benefit offset program.

ANIMAL HEALTH DIVISION

The programs and services provided by the division included a complete range of laboratory diagnostic services, inspection of livestock and meat disease investigations on farms, consultations on disease prevention, and transfer of information on diseases of livestock and their management. The purpose of division programs and services was to assist livestock owners and veterinarians with the recognition of disease problems, to improve disease prevention and control methods, to help ensure the production of safe and high quality food products, and to enforce the legislation assigned to the division.

Grants were provided during the year to assist the Alberta Society for the Prevention of Cruelty to Animals with the employment of special constables to investigate problems associated with cruelty, neglect and distress in animals.

Health problems during the year included losses of calves and cows as a result of the May snowstorm, and an increased number of reports of hypocalcemia and by hypomagnesemia in the southern portion of the province.

Leptospirosis continued to cause problems in cattle and swine herds. Equine viral arteritis (EVA) was diagnosed in the province for the first time during the year and arrangements were made with a local laboratory to provide serological testing.

Following increased reports of salmonellosis in livestock, closer surveillance of young calves sold at auction markets was arranged. Several outbreaks in dairy and beef cattle herds were investigated. The transportation of baby dairy calves from British Columbia for veal raising was identified as a major source of salmonellosis in Alberta.

Rabies in skunks reached epidemic proportions in Saskatchewan and efforts were increased to control skunks along the border and to depopulate areas surrounding the location of positive cases in Alberta. During the year one positive skunk and five positive bats were reported in Alberta.

Pathology Branch

The pathology branch provided animal disease diagnostic laboratory services to livestock owners, practising veterinarians, a variety of scientific institutions, and to the rural and urban public. The service provided technological results and interpretation of findings to producers to assist them in reducing losses from both clinical and subclinical diseases in livestock. For the majority of submissions, the laboratory results were reported to private veterinary practitioners, assisting them in providing competent professional services at the local level. The expertise of branch personnel provided services not readily available to veterinary practitioners for the accurate diagnosis of diseases of animals. At the same time, the branch was able to exercise a quality control role for veterinarians. The branch was occasionally called upon to act as an authority in matters of dispute between clients and veterinary practitioners.

The branch examined a total of 9,684 submissions in 1986, a slight increase over the previous year. User fees were instituted for companion animal submissions.

Most of the technological information was transferred from the pathologists to producers or their veterinarians. The branch was active in other areas of extension activity including speaking engagements at producer, professional, and scientific meetings. Twelve articles were published in scientific journals and several reports were published in other journals. A manual to assist veterinary practitioners with correct procedures for the submission of specimens to the laboratory was prepared and distributed to all veterinarians in the province. Five factsheets on animal diseases were provided during the year.

Several applied research projects were undertaken. These projects were short term, problem oriented and included a survey of internal parasites and ectoparasites of Alberta cattle, use of melatonin implants to improve hair growth of foxes, renal dehydration as a cause of baby chick gout syndrome, artificial insemination procedures to be used in foxes, the influence of lungworms in bighorn sheep, veal calf milk replacer nutrition studies, investigations into the incidence of leptospirosis in swine and cattle, a study on humane trapping of fur bearing animals, and an in-depth investigation of high mortality in a turkey breeder flock. In co-operation with other branches and with the industry, an investigation into feedlot pneumonia was undertaken.

The branch assumed a prominent role in the generation of a livestock disease data base for the province. The Snovet terminology system was adapted to allow standardization of case data.

Regional Laboratories Branch

The regional laboratories located at Fairview, Airdrie and Lethbridge continued to provide a disease diagnostic service for livestock producers and their veterinarians in Alberta. Veterinarians at the three laboratories co-operated with fish and wildlife personnel investigating health problems in fish and wildlife, and assisted predator control officers in their investigations. Laboratory personnel provided consultation services for producers, veterinarians and other government agencies. Field investigations were conducted for unusual or serious disease problems. Branch veterinarians participated in extension programs relating to animal health concerns.

The Fairview laboratory provided instruction to student animal health technicians at Fairview College and the Northern Alberta Institute of Technology. The Airdrie laboratory provided instruction to students from Olds College.

Studies were conducted at the Fairview laboratory into respiratory disease of cattle associated with dust emanating from round hay bales, and investigated lung worm disease in calves during the year.

Feedlot disease studies were undertaken at the Airdrie laboratory and co-operating feedlots. Pneumonia continued to be a major feedlot disease and study was directed towards improving the recognition of the various types of this costly disease. Other investigations included stinkweed poisoning in livestock, hemophilus disease in lambs and salmonellosis in dairy calves.

The Lethbridge laboratory was also involved with feedlot diseases. The laboratory conducted an in-depth investigation of the effects of grasshopper spraying on livestock. Investigations were also conducted into photosensitization of cattle and into possible causes of abomasal ulcers in young beef calves. Numerous specimens were processed for diagnostic studies into mycoplasma pneumonia and pleuropneumonia of swine.

Reference Laboratories Branch

The branch continued to provide laboratory support services to division pathologists and field veterinarians, other institutions, veterinary practitioners and livestock producers. The services were provided in the disciplines of toxicology (toxicoses, nutritional deficiencies and clinical chemistry), electron microscopy and histopathology (pathology at the cellular and subcellular level), serology (surveillance of the immune status in herds or flocks or exposure status to disease causing agents) and virology, bacteriology and mycology.

The branch handled 63,374 diagnostic specimens which represented a 10 per cent decrease compared with 1985. Most of this decrease was related to the transfer of human toxicology services to the private sector during the year.

Implementation of federal government "dangerous goods shipping regulations" had a negative impact on laboratory functions. Alberta Safety Services agreed to co-ordinate an evaluation of the situation.

The toxicology section expanded its agriculture-oriented analysis capabilities significantly. Joint research projects were undertaken with other government institutions including the Alberta Environmental centre at Vegreville, soil and feed laboratory, the University of Alberta and the Western College of Veterinary Medicine.

The histopathology-electron microscopy section continued to provide province-wide service for electron microscopic diagnosis. Considerable project-related work was generated from both within the division as well as joint projects with veterinary practitioners for feedlot disease studies.

The virology-serology laboratory section provided the first Canadian isolation of equine arteritis virus, the cause of an economically significant disease of horses. Screening of mosquito hatches, as part of the provincial western equine encephalomyelitis surveillance system, continued; no viruses were isolated.

Meat Hygiene Branch

Meat inspection sevices were provided to 74 red meat plants and 87 poultry plants, including 79 operated by Hutterite colonies in Alberta during the year. Livestock inspected included 38,858 cattle; 85,970 hogs; 5,295 sheep; 1,097 goats; 58 buffalo; 18,270 rabbits; 2,298,087 broiler chickens; 276,110 fowl; and 129,422 ducks, geese, turkey and pheasants.

Cattle slaughter decreased marginally from the previous year while hog slaughter increased markedly. Numbers of other classes of livestock were relatively stable. Carcass condemnation for the year were approximately 1.2 per cent for cattle; 0.9 per cent for hogs; 0.36 per cent for sheep; 2.2 per cent for goats and 2 per cent for poultry. During the year 60 mobile butchers were registered, although only approximately 20 were active. Mobile butchers reported slaughter of 1,319 cattle; 77 hogs; 16 sheep; a buffalo; 12 goats.

Enforcement activities continued during the year with approximately 125 possible violations being investigated.

Livestock Predator and Beeyard Compensation Programs

These programs were administered by the division with decisions concerning compensation made by committees operating in the Peace River district and in Edmonton. The programs compensated farmers suffering from livestock losses through predation and beekeepers suffering bear damage.

Moneys paid out were $200,000 for 653 predator attacks and $4,134 to beekeepers for 21 instances of bear damage.

Health Management Branch

The prevention and control of diseases in livestock herds, administration of legislated animal health programs, safeguarding human health by control of designated diseases and enforcement of regulations for sale of livestock medicines were the major responsibilities of the branch. Veterinarians in private practice were employed to conduct auction market inspections, community pasture inspections,

preconditioning program visits and a high percentage of the visits to swine herds enrolled on the swine herd health program. Veterinary practitioners were also involved in extension activities and occasionally were asked to conduct disease investigations. Techniques for disease prevention and improved production were emphasized to livestock producers and veterinarians in Alberta.

The demand for information on diseases of livestock remained high. The *Animal Health Division Newsletter* continued on a monthly basis and was distributed to veterinarians. The first five chapters of the Animal Health home study course were updated. Several publications and factsheets were revised. Numerous telephone interviews were conducted and several articles and news releases were prepared.

Enrolment in the swine herd health program declined slightly.

All livestock offered for sale at auction markets, or entering community pastures within the province, continued to be inspected by veterinarians appointed by the department. The number of animals rejected remained at about one-half of one per cent of those inspected. Postmortem examinations were again conducted on all animals that died on provincial grazing reserves during the grazing season. Blackleg and pneumonia were major problems on three grazing reserves during the year.

The number of licensed livestock medicine outlets remained relatively constant throughout the year, and regular supervision of these outlets was maintained to ensure that they conformed with the regulations.

The six provincially owned veterinary clinics in western and northern Alberta continued to provide a full range of veterinary services. Those at Edson, High Prairie and Fairview remained strong and viable practices, whereas those at Valleyview, Manning and Fort Vermilion required additional income support to maintain a veterinarian in these areas. The mileage assistance program was continued in ID23 to encourage greater use of veterinary services.

The number of producers participating and the number of animals certified under the Alberta certified preconditioned feeder program showed a marked increase over the past year.

An analysis of data collected from feedlots participating in the bovine respiratory disease project began. This project, funded by Farming for the Future, was conducted jointly between Alberta Agriculture and the Veterinary Infectious Disease Organization in Saskatoon.

FIELD SERVICES

The field services sector was the principal means through which the department delivered technical, and management information and services to Alberta farmers and farm families.

To meet local needs, information and services were delivered through a network of 66 district offices, administered and supported by regional offices at Lethbridge, Airdrie, Red Deer, Vermilion, Barrhead and Fairview. Effective April 1, 1986, the responsibility for the administration of the district home economist service and the 4-H field service was transferred to the regions.

The sector also included the rural services division which was composed of the 4-H branch, the home economics branch, the agricultural education branch, the agricultural engineering branch, and the agricultural and community services branch. Effective January 1, 1987, the information services division was added to the field services sector as part of the departmental reorganization which occurred at that time.

Sector staff continued to emphasize the economic and management aspects of agricultural production in their extension activities, while programs such as the support of agricultural societies were directed at contributing to the quality of life in rural Alberta.

RURAL SERVICES DIVISION

The rural services division provided various programs, services and training to assist rural communities. Increased emphasis was given to financial management and computer programs.

4-H adopted Cleaver the 4-H Beaver as their mascot. He appeared in a number of major events, weekly newspapers throughout Alberta and on television. The 4-H program continued to emphasize leadership and skill development. Training, resource material and 4-H promotion was directed in these areas.

The department extended the emergency farm water assistance program due to the continued dry conditions across the province. The water well recovery program provided grants of $87,321.29 to 26 farm applicants.

"Agriculture in the Classroom", an educational awareness program for Alberta youth was developed to update the image of the agricultural industry. Resource materials were developed for Grades 1 to 12. The green certificate program, the only farm training program of its kind in Canada, continued to receive national and international recognition. During 1986, approximately 3,000 people enrolled in home study courses. A new course, "Farm Estate Planning - A Family Affair", was developed.

The number of fatal farm accidents in Alberta decreased dramatically, a reduction of 55 per cent from previous years. The sharp reduction is attributed to increased public awareness of farm safety created through seminars, workshops and publications for children. The agriculture manpower programs unit was given the added responsibility of the agriculture work experience program which provides extension work experience for university agriculture students.

The home economics staff provided specialist services to staff and the public through programs, publications, training and films. The nutrition at school program concluded at the end of the fiscal year after 14 years of operation. Staff began to develop nutrition education materials for Alberta schools to replace the nutrition at school program. Resource material for Grades 1 to 3 was developed and work began on developing material for Grades 4 to 6. Grants were provided to womens' agricultural organizations to support various programs.

Agricultural service boards were given grants to assist them in various programs including soil conservation and weed control.

Grants were provided to agricultural societies, an integral part of the agricultural community. Meetings were held in various communities to provide information about agricultural society programs.

Agricultural Engineering Branch

Agfest '86, held in conjunction with the Canadian and World Plowing Match at Olds in late May, began the engineering branch's summer extension program. Summer activities centered around methods of reducing farm input costs through tractor fuel efficiency demonstrations which were carried out in co-operation with Olds College. Eighteen field demonstrations were held in the southern half of the province.

The emergency farm water assistance program was extended because of continued dry conditions across the province. This program provided financial assistance to farmers developing more permanent water supplies. It provided grants for farmers building new dugouts and stock watering dams, matching the existing Prairie Farm Rehabilitation Administration (PFRA) grants available for this purpose. Additionally, it provided grants (covering one-half the cost up to $1,000) for farmers wishing to rehabilitate existing dams and dugouts. There were 4,336 grants for a total of $3,685,000 paid out to farmers under the program.

The emergency program complemented the branch's dugout pumping program which was again expanded to meet the problems created by the extreme dry conditions. Over 500 farmers were assisted with the average pumping distance requiring more than a single one mile unit to complete the work. All of the requests received were serviced and the repair and maintenance program completed rehabilitation of all the equipment during the winter months. Both of the water programs were operated in close co-operation with PFRA and Alberta Environment.

Publications remained a major thrust of the engineering specialists. The build-your-own series was expanded and the new series of 10 *Lube Notes* was completed.

The expanded skill training program reached more farmers this year than ever before. Nearly 2,000 farmers attended the courses between November 1, 1986 and March 31, 1987. The introductory computer course continued as the most popular, however, attendance was also up in such traditional courses as welding and mechanics.

The computerization of The Farm Implement Act licensing program was completed. As a result, licensing of dealers and distributors was completed much earlier than in former years. The number of complaints lodged under The Farm Implement Act remained at last year's level. Concerns regarding repair parts availability and price led the complaints.

The demand for information provided by the Canada plan service remained strong despite the economic downturn. An increasing number of farmers and building suppliers requested detailed information on the plans. Over 4,000 individual plans were supplied through regional and district offices throughout the year.

Engineers continued to actively work with the Association of Seed Cleaning Co-ops, assisting with design improvements and renovations. New plants were completed at Dawson Creek, Carstairs and Stony Plain.

Remodelling was the major thrust of the home design specialist who carried out 25 workshops with a total attendance of over 1,500 farm families. Fifty-five farm families received design drawings to aid them in remodelling projects. In addition 183 stock working drawings and 140 construction detail sheets were prepared.

4-H Branch

The 4-H program continued to emphasize four areas: project revision and development; 4-H promotion, including member/leader recruitment; the delivery of support and training to adult volunteer leaders; and communication and personal development training.

The 4-H branch served a clientele of 7,396 4-H members and 2,321 leaders associated with 471 clubs during the 1986-87 4-H club year. Project enrolment was approximately 8,200 owing to some members taking more than one project. The individual project remained the focal point in the 4-H program. Thirty-two projects were offered, the most popular being beef, with light horse second.

Materials revised by the 4-H branch included educational manuals in the junior leadership, light horse, beef and dairy projects, member record books, clothing leader supplement, computer leader supplement, pheasant project book and community resource manuals.

4-H adopted a mascot in 1986. Cleaver the 4-H Beaver, was selected from among 315 contest entries. The

beaver costume, recommended by a teen-aged promotion advisory group, appeared in six major parades in the month following its debut at the Calgary Stampede parade, July 4.

1986 Premier's Award winner Sherry Roth of Heisler toured Alberta, recruiting membership during the sixth annual provincial 4-H media blitz.

Long-time 4-H club leader and active Alberta 4-H Council member, Dorothy Rigney of Bon Accord, was inducted into the 4-H Hall of Fame as 276 4-H leaders participated in the Alberta 4-H Leaders' Conference in Calgary. Thirty-three 4-H leaders were selected to represent Alberta at national and international leader training/recognition programs.

One hundred and forty-two senior 4-H delegates attended the provincial 4-H selections program which featured the stress management theme "Bending Without Breaking". Sixty-four delegates received award trips to attend provincial, national and international programs. Two provincial 4-H Club Weeks attracted 230 4-H members. One hundred and sixty-three members attended three "Way With Words Weekend" communication training seminars.

Almost 90 per cent of the 4-H clubs participated in the annual highway clean up, clearing 5,168 miles of roadside. In support of the Alberta Forestry, Lands and Wildlife "Use Respect" program, 4-H members from 240 clubs assisted in conducting a survey of 14,450 farms.

Fifty-five 4-H delegates from across Alberta attended the annual 4-H conservation camp where they studied environmental issues. The provincial beef heifer show attracted member delegates from almost 40 Alberta 4-H clubs, while about 20 4-H clubs participated in the provincial 4-H dairy show.

Eighty-six members were trained at the "leadership through counselling" seminar at the Alberta 4-H Centre, Battle Lake. These 4-H'ers then applied their skills as volunteer camp counsellors at 16 junior 4-H summer camps. Scholarships valued at $25,700 were awarded to 34 4-H members.

Over 300,000 feet of film depicting 24 years of *4-H Clubtime* television footage was computer catalogued and transferred to videotape for archival storage and future use. The television series, *4-H Clubtime* aired 14 of 22 scheduled episodes over CBC and via satellite over the ACCESS Network. Fifty-two episodes of the four minute weekly radio program, *4-H News Roundup* were broadcast over 34 Alberta radio stations.

4-H staff conducted training seminars on: leadership skills, communication training, club operation, farm safety, stress management, personal development, and project skills and judging. Client groups involved in workshops and seminars included agricultural societies, women's institutes, the Rural Education and Development Association (REDA), agricultural service boards, 4-H members, leaders and parents.

4-H staff worked with district, regional, provincial and national 4-H councils; the 4-H Foundation of Alberta, 4-H alumni clubs and the Alberta Rural Youth Association (ARYA). 4-H staff provided input to, and drew resources from, over 20 other government departments and community organizations.

4-H BRANCH CLIENT CONTACTS

1. Educational/Consultative Activities Involving 4-H Clients

Topic	4-H Branch Staff		Regional 4-H Specialists		Total	
	# Events	Attend-ance	# Events	Attend-ance	# Events	Attend-ance
Projects	48	1,208	874	13,825	922	15,033
Personal Development	24	737	145	2,178	169	2,915
Communication Training	7	298	195	2,745	202	3,043
Camping	33	1,170	119	1,053	152	2,223
Leadership	24	622	288	2,094	312	2,716
4-H Promotion	12	705	163	3,083	175	3,788
4-H Administration & Other	61	596	366	1,180	427	1,776
TOTAL	209	5336	2,150	26,158	2,359	31,494

4-H BRANCH CLIENT CONTACTS continued

2. Client Contacts

	4-H Branch Staff	Regional 4-H Specialists	Total
Telephone Calls	8,266	12,511	20,777
Mail Contacts	7,151	14,432	21,583

3. Media Contacts

	4-H Branch Staff		Regional 4-H Specialists		Total	
	# Items	# Contacts	# Items	# Contacts	# Items	# Contacts
Newspaper	70	2,214	200	1,201	270	3,415
Radio	68	1,215	119	125	187	1,340
Television	16	70	3	5	19	75

4. Major Meetings

	4-H Branch Staff		Regional 4-H Specialists		Total	
Level	#	Attendance	#	Attendance	#	Attendance
Club	2	85	29	636	31	721
District	1	45	166	2,709	167	2,754
Regional	11	216	61	1,017	72	1,233
Provincial	26	396	22	98	48	494
Fair Board/Ag. Society	22	162	30	121	52	283
Other	18	540	24	374	42	914

ALBERTA 4-H CLUB MEMBERSHIP BY PLACE OF RESIDENCE

	Female	Male	Total
Farm	3,081	2,764	5,845
Rural Non-Farm	581	257	838
Urban	614	246	860
TOTAL	4,276	3,267	7,543

Total number of clubs = 491
Total number of members = 7,543
Total number of adult volunteer leaders = 2,332
Average age of 4-H members = 13.05 years
Average tenure of 4-H members = 2.90 years

SUMMARY OF 4-H CLUBS BY PROJECT

Club Project	No. of Clubs
Beef	168
Canine	0
Clothing	16
Computer	2
Crafts	8
Dairy	13
Field Crops	0
Foods	10
Horticulture	1
Light Horse	78
Multi-Project	177
Outdoorsman	3
Pheasant	1
Photography	0
Rabbit	0
Sheep	6
Small Engine	3
Speech Arts	1
Swine	2
Vet. Science	0
Woodworking	2
TOTAL	491

Agricultural and Community Services Branch

The agricultural services section provided administrative and operative support to agricultural service boards and agricultural development committees. Sixty-six agricultural service boards were allocated $4,048,00 in basic grants to assist them in the execution of essential programs in soil conservation, weed control, field crops, pest control, horticulture and tree planting, livestock improvement projects, training and extension. An additional $150,000 was allocated to soil conservation projects under a federal/provincial agreement and in response to individual agricultural service board requests. Cities and towns received $56,890 in grants to carry out weed control programs.

Emphasis was placed on providing training to agricultural service boards, agricultural fieldmen and board chairmen to increase their effectiveness in program planning, formulation of local agricultural policy, and staff development and supervision. To accomplish this 22 visits were made to individual boards and 33 workshop sessions were held with boards or board members across the province.

To further assist boards in carrying out their activities, four issues of the provincial agricultural service board newsletter and additional procedural outlines for the ASB planning guide were circulated. For the first time a resource personnel directory and an agricultural fieldman's directory were developed in co-operation with government departments associated with agricultural service board's. The directories will assist local boards in identifying the appropriate technical resources during the planning process, and will improve communication with government agencies and between individual boards.

The policy of advancing 75 per cent of the annual grant allotment to agricultural service boards on the approval of the memorandum of agreement was maintained. Boards were given increased flexibility to transfer allocated grant amounts from one project to another enabling them to make effective use of limited grant funds and to respond to the need for emergency programs.

Provincial input into organizing, planning and resourcing regional and provincial agricultural service board conferences and training sessions for agricultural fieldmen improved communications and increased the participation of board members.

Sixty agricultural development committees provided understanding of local conditions and needs in hearing appeals on Agricultural Development Corporation (ADC) loan applications and the disposition of public land. Committees also contributed to the development of policies in Alberta by identifying program needs in rural communities, and evaluating the impact of programs and the effectiveness of the delivery system.

A significant number of agricultural service boards and agricultural development committees submitted briefs to hearings reviewing the Alberta Hail and Crop Insurance Corporation and the Agricultural Development Corporation (ADC).

Three meetings were held by agricultural development committees at the regional level to discuss agricultural concerns.

To improve understanding about the operation of the ADC, selected individual committees were invited to attend board meetings and to tour the facility at Camrose.

The community services section provided support to 288 agricultural societies through leadership and organizational training workshops, regular bi-monthly newsletters and resource materials to enhance the effectiveness of the agricultural societies. Agricultural societies encouraged improvement of the quality of life of the agricultural community by sponsoring various courses and demonstrations, fairs and exhibitions and by operating community facilities.

Five information meetings were held with various communities to provide preliminary information about the agricultural societies program. Consultative meetings were held with new and existing agricultural societies covering the areas of reorganization, leadership development, program planning and facility development and operations. Staff of the community services section facilitated 24 consultative meetings. Staff also participated in conferences of the Canadian Association of Exhibitions and the Alberta Association of Agricultural Societies. Seven new agricultural societies were formed in 1986-87.

Community services staff sponsored five fair planning workshops and facilitated sessions at four fair workshops sponsored by district staff.

Funding was provided for a variety of fair judges at agricultural society fairs and at Women's Institute competitions throughout the province.

The community services section continued to support and co-operate with the Alberta Association of Agricultural Societies in its capacity as the provincial umbrella organization for agricultural societies.

Programs such as exhibitions, fairs and displays received financial support. Financial assistance to agricultural societies to assist in the construction, rennovation and operation of multi-use community facilities was also provided. Operating grants to 212 agricultural societies totalled $1,234,412; 154 fair grants totalled $214,626 and 16 capital grants totalling $858,778 were provided. All agricultural societies in good standing on April 1, 1986 became eligible for grants under a three-year program with the Western Canada Lottery Corporation. A total of $4,940,000 per year was allocated to this program.

Home Economics Branch

The home economics branch provided specialist services to field staff and the public, and co-ordinated the nutrition at school, rural agricultural products promotion (RAPP), farm accounting assistance and Alberta women's week programs. Branch staff made numerous educational presentations to the public and conducted in-service training for department staff. They fielded information requests from staff and the public, and researched and developed many resources for district home economists to use in their extension programs.

Farm family financial management was highlighted in the work of the family resource management specialists. Programs, publications, teaching materials and staff training were developed to integrate farm and family management.

Understanding the needs of the farm and family was the focus of the three "Gear Up Financially" course lessons prepared — goal setting, decision making and farm family expenditures. Family resource management specialists contributed to the development of two films for use in the course. In support of the farm accounting assistance program, course materials and audio visual resources were prepared.

Four lessons were prepared for the "Farm Estate Planning: A Family Affair" home study course. A video and display were also developed to support this course.

Interest remained high in farm family expenditure data. Over 1,000 copies of the report *1985 Family Expenditure of 62 Northeast Alberta Farm Families* were distributed to farm families, loans officers and department staff. Close to 350 farm families kept track of their family living expenditures during 1986 under FAMEX, a Farming for the Future project conducted jointly with the department of rural economy, University of Alberta. In 1987, 300 families began keeping family expenditure records as a follow up to the research project.

Clothing and textiles specialists conducted extensive programming in protective clothing for pesticide use. Presentations were given at regional conferences and at the annual conferences of the Alberta Women's Insititute and Women of Unifarm. Displays were manned at the world plowing match, agricultural fieldmen's conference and at an agricultural service board field day.

The Farming for the Future funded research, *Limited Pesticide Exposure Through Textile Cleaning Procedures and Selection of Clothing* continued and relevent findings were distributed to primary producers. Preliminary work on *Evaluation of Protective Wear for Agriculture Workers* was carried out in the Three Hills district. Ten district home economists and 350 farmers are involved in further study to assess the acceptance of disposable coveralls by pesticide handlers.

A region 6 Farming for the Future on-farm demonstration project, designed to test the use of geotextiles for weed control to improve water quality in dugouts, continued to be monitored by the provincial clothing and textiles specialist.

Home based business - sewing for profit programs were in demand as many farm families explored possibilities to supplement their income. Programs were often done in collaboration with local entrepreneurs, bankers and small business division personnel.

Foods and nutrition specialists gave special attention to nutritional issues surrounding foods. These issues were the focus of two, two-day updates provided for district home economists. Regional foods and nutrition specialists conducted sessions on "Nutritional Issues of Concern to Women" at district and regional

educational conferences. Participants expressed particular interest in osteoporosis, diet and cancer, and heart disease.

Thirteen Alberta food companies, agencies and commodity groups had recipes tested by the home economics test kitchen. The facility was also used by staff of the Food Processing Development Centre, Beef Information Centre and the Alberta Egg and Fowl Marketing Board.

The rural agricultural products promotion (RAPP) program done in co-operation with the Alberta Food Processors Association and the market development division, moved into its second year. Thirty-nine RAPP projects were carried out by district home economists.

Nutrition education materials were developed for use by teachers of Grades 1 to 3. Entitled, *Explore Nutritious Alberta*, the materials support the nutrition component of the elementary health curriculum and link agriculture with food and nutrition. Work began on developing resources for use in Grades 4 to 6.

Microcomputer software was developed under the direction of branch specialists. Five financial management programs were developed and three nutrition programs were updated and distributed to district home economists for their use. "Diet Detective", a diet analysis program, was revised and programmed for use on a microcomputer. The new version includes stress factors and highlights selected Alberta food products.

Several new publications were prepared for inclusion on the department's publication list: *Lunch, Farm Office: Fit It All Together* and *Landing A Job: Strategies For Farm Wives.*

Grants were provided to the Alberta Women's Institute and Women of Unifarm in support of their programs for rural and farm families. A joint project, "You and Your Organization", was initiated with the Alberta Women's Institute and is aimed at increasing organization effectiveness.

Agricultural Education Branch

The branch was responsible for developing and delivering, on a provincial basis, educational programs to support field services sector activities in the extension of technology and development of the farm business.

"Agriculture in the Classroom", an educational awareness program, was developed for Grades 1 through 6. The Alberta-based curriculum consisted of learning resource handbooks for use by teachers in Alberta schools. The program aims to create a greater awareness of the importance of Alberta's agricultural industry and to enable young Albertans to make informed decisions in the future.

One thousand and seven hundred *Pride in Alberta* handbooks developed for Grades 4 to 6, were distributed to Alberta schools by request and to teachers at workshops for a one-year pilot period. The Grades 1 to 3 handbook, *Agriculture and Me*, was written and is ready for publishing and piloting in 1987. Introduction of the handbooks in the classroom was encouraged through teacher workshops at professional development days, presentations or workshops at seven of the regional teachers' conventions, and a newsletter to 5,000 teachers in participating schools. Evaluations of the workshops indicated that they were useful and appreciated.

The green certificate program continued to provide training in the technical and managerial skills required of permanent farm employees or aspiring farmers. This apprenticeship-style, adult education program continued to co-operate closely with more than 250 Alberta farmers who provided training facilities, teaching services, and undertook certification and testing duties. Training was offered in dairy, beef, swine, and cereals and forage crop production.

This past year saw the commencement of a special arrangement with Alberta Career Development and Employment to fund the training services provided by farmers. This interdepartmental co-operation provided stability and continuity to the program.

The program operated with an average population of about 225 trainees on farm sites throughout the province. A total of 130 certificates were issued to competent trainees during the year. In spite of the weak farm economy, these graduates found ready

employment on farms as a result of a continuing need for technologically skilled and qualified farm manpower. Persons interested in the program's methods and experiences were hosted from Australian colleges, the Quebec ministry of education and Saskatchewan Agriculture.

The primary purpose of the home study program was to develop and maintain educational programs for self study by farmers and farm families and for use as a resource support for the delivery of extension programs in the field. Farm Estate Planning — A Family Affair was the one new course developed during the year. For the first time, an optional supplemental video cassette was available with a home study course. Two courses were revised and reprinted: Animal Health and Dairy Production. Approximately 3,000 people enrolled during the year in the 12 available home study courses.

During the summer of 1986, a home study needs assessment and evaluation was conducted. Results indicated home study courses are largely meeting the needs of registrants: 87 per cent of the respondents would recommend a home study program to a friend or neighbour and 99 per cent retain home study material for future reference. The survey showed that home study registrants, compared to the average farm population, are younger, better educated, have farmed fewer years and have larger farms and higher gross farm sales.

There was a dramatic decrease in the number of fatal farm accidents in Alberta, the first drop in a decade. For the 10 years from 1976 to 1985 an average of 28 farm fatalities occurred each year. In 1986, that figure dropped to 13, a reduction of 55 per cent.

A similarly dramatic drop occurolving government, farm organizations, schools and private industry.

Response to the farm safety program continued to be overwhelming. Two hundred and fifty workshops and seminars were conducted with approximately 8,000 farmers, farm workers and farm family members attending.

Farm safety continued to receive support from volunteer farm organizations such as Alberta Women's Institutes, Women of Unifarm, Alberta Association of Optometrists, Farm Equipment Dealers' Association of Alberta and British Columbia and Alberta Flying Farmers.

The farm safety program continued to receive national and international recognition by invitation as a consultant to the Canadian Pediatric Society, Accident Prevention Committee and presentation of a paper at the summer meeting of the National Institute for Farm Safety, Inc. at Orlando, Florida.

The agriculture work experience program (AWEP) was added to the roster of the agriculture manpower programs unit. The AWEP provided extension work experience for university undergraduate agriculture students and was very positively evaluated.

Responsibility continued for the administration and placement function for the following programs:

Summer temporary employment program (85 positions), priority employment program (54 positions), veterinary work experience program (32 positions), summer farm employment program (960 positions).

The response of applicants for available positions continued to be overwhelming, as the economy tightened and unemployment rates climbed.

In addition, this unit was responsible for processing agricultural entrepreneurial immigration proposals. During the 1986-87 year, 24 applications were reviewed, and an economic analysis and feasibility study performed on each.

INFORMATION SERVICES DIVISION

Information services division provided information to the agricultural industry and the general public on Alberta Agriculture programs, policies, production and marketing through the print and electronic media. It also produced support material for department staff to assist in delivering programs to farm families.

Information services provided organizational support and publicity for special events such as Agriculture Week and the Alberta Agriculture Hall of Fame. Producer groups and agricultural organizations also received assistance.

All areas of the department were assisted in complying with legislature and policy requirements for long-term records storage.

Broadcast Media Branch

The broadcast media branch produced a daily radio program and several films and video tapes. It also provided a film and video lending service, audio visual production service, and advice and training in effective use of broadcast media.

Two hundred and sixty-one *Call of the Land* programs were produced in 1986-87 and were aired on 15 AM and eight FM stations in Alberta to a daily listening audience of over 55,000. More than 800 separate stories were aired on the programs.

Nineteen films and video tapes were produced. These included 13 extension films, two public service announcements and four vignettes for the Agriculture Hall of Fame. Several films won awards in a variety of national and international film competitions. They included *At The Crossroads*, *Salt Woes* and *When Murphy Goes Farming*.

Over 4,500 films, slide kits and video tapes were loaned to schools, 4-H clubs, department staff and other organizations. Eighty-three new films and videos were added to the film library.

The branch provided an audio visual service to department staff. Overhead transparencies, slides and flipcharts were produced to enhance staff presentations. A 15,000 slide collection was updated.

The branch head helped design and resource 25 days of training workshops dealing with enhancing presentations and communications skills. Radio commentators were also resource personnel at some of these workshops.

Print Media Branch

The branch provided technical information on agriculture to farmers and others in the agriculture industry, and general information on agriculture and food to the general public. Staff of the department and associated boards and commissions were provided with advice and training in effective print communications, and editorial and publishing services.

Agri-News, a weekly news release package, provided 624 articles to 280 media facilities and 3,850 other recipients. Special press kits were prepared for the Agriculture Hall of Fame and distributed to the media throughout Alberta. Several seminars and workshops on writing for the media were conducted for department staff. Other press services provided were advice on the effective use of the media, assistance with the editing and rewriting of columns and articles for field staff, and the production of special press releases.

One hundred and ninety-nine new and revised technical publications for farmers and their families were issued. A monthly listing of these extension publications, *What's New in Publications*, was produced and sent to 5,000 persons in the agriculture industry. Numerous other reports and promotional publications were also published. Assistance was provided with the development and placement of the department's advertising.

There were 391 printing jobs placed with commercial printers and supervised by branch editors. The in-house duplicating shop printed a total of 19.6 million pages for the 1,383 jobs it handled. This included 51 different newsletters and reports for regular distribution to the public.

More than 1,200 different publications on commercial farming, home economics and gardening were available to the public from the print media branch and field offices. There were 967,049 copies of publications

distributed. The branch responded directly to 18,260 requests from the public and handled 4,620 orders from field offices for publications. All 4-H manuals and other club materials were reordered, stored and distributed by the branch.

Timely information on commercial farming was sent monthly to more than 50,000 readers by means of an insert in the Alberta edition of the *Country Guide* magazine.

Staff graphic artists handled 154 design jobs for the department's printed and audio visual materials.

Library Services Branch

The library services branch provided a broad range of information services to department staff as well as to the agricultural community in Alberta.

The library system consisted of the main library in Edmonton and 14 regional and branch libraries throughout the province.

Demand for library services continued to grow in 1986-87, reflecting a general trend begun in 1983 when the Edmonton collections were amalgamated into the main library. Circulation of library materials grew by 29 per cent, just under last year's record growth of 32 per cent, while the number of books and reports added to the collection increased by 47 per cent over 1985-86. Both interlibrary loans and reference services increased substantially as well.

Library staff utilized a variety of on-line databases to access agricultural information worldwide, including those of the Commonwealth Agricultural Bureaux in the U.K. and the National Agricultural Library in the U.S. An electronic messaging system for interlibrary loans was implemented, allowing the library to fill requests much faster than previously. The library continued to use UTLAS for catalogue support, in addition to maintaining the SCITECH database, an on-line catalogue developed and maintained by the libraries of Alberta Agriculture, Alberta Environment and Alberta Research Council. By the end of 1986-87 there were almost 77,000 volumes in the co-operative catalogue. Agriculture's share was 30.3 per cent or 23,326 volumes.

The library established SDI (selective dissemination of information) profiles for department staff in several research areas. This new service is designed to support ongoing research by bringing the results of new investigations to the attention of departmental researchers.

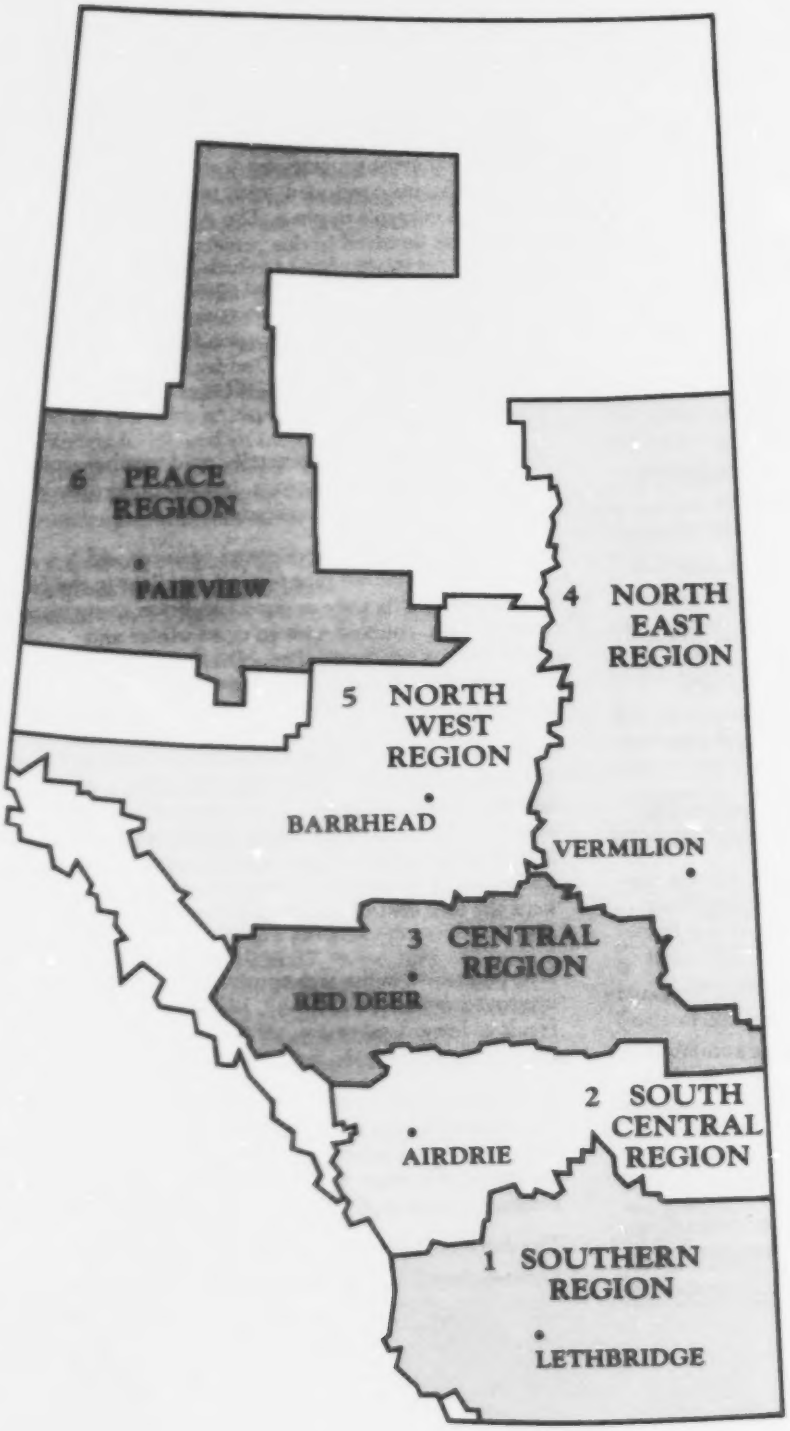
A number of projects were initiated and completed with the help of temporary employment programs. These included cataloguing the annual reports collection, preparing a list of newsletters and statistical publications and updating the library's holdings of conference proceedings. In addition, a major bibliography of marketing information resources was prepared by library staff in co-operation with the marketing sector.

During the year the research division donated 160 Farming for the Future project reports to the library. These reports were fully catalogued and integrated with the book collection and were made available to department staff and others interested in borrowing them.

Research skills workshops were presented to department staff in Edmonton and Lethbridge. In addition, regular library orientations were provided to new department and project staff.

The library continued to play an active role within the library community, including membership on the Alberta Government Libraries' Council, an inter-departmental committee. Library staff were actively involved in local and national professional associations, including the Canadian Agriculture and Food Librarians group.

MAP OF THE SIX ALBERTA AGRICULTURE REGIONS



REGION 1 — SOUTHERN REGION — LETHBRIDGE

Crop yields were average or better in most instances. The region did not experience an unusual number of hail storms or dried out areas, but there were a few new problems in cereal crops.

The brown wheat mite, the green plant bug and stripe rust had not caused any important crop damage until this year. Thousands of acres were sprayed for the green plant bug to minimize losses.

A large proportion of Fielder soft white spring wheat was infected with stripe rust. Losses varied, up to 75 per cent according to some reports, with 45 per cent yield reductions common.

Some crops, such as sugar beets and irrigated hay, produced above average yields and quality.

The rainfall during harvest caused a marked deterioration in grade for late maturing cereal crops. These poor grades, coupled with low prices, substantially reduced farm income in the region.

The use of herbicides, fertilizers and insecticides was near average.

In the spring, soil erosion was a very serious problem until crops had grown sufficiently to protect the soil. Fewer fields suffered from chronic wind erosion problems in 1987 compared to 1986. This change was largely due to joint provincial and municipal programs and widespread farmer co-operation.

The number and extent of farm demonstrations and trials increased as interest in alternative crops expanded.

In 1986, special crop acreage in southern Alberta was up approximately 27 per cent over 1985. Significant acreage increases were seen in such crops as dry beans, dry peas, lentils and mustard. Close to 30,000 acres of sugar beets were grown in 1986 after no acreage in 1985.

The growing season had an above average accumulation of heat units, resulting in excellent corn and dry bean crops. The wet fall dramatically reduced the quality of any crops still to be harvested and caused close to 1,000 acres of sugar beets and 1,000 acres of dry beans to be left unharvested.

The commitment of the farming public to controlling dryland salinity continued despite the poor crops and low rainfall in 1985.

The region 1 team leaders initiated a dryland salinity investigation service procedures manual to standardize the investigations in Alberta and across the prairies. Twenty-nine applications for investigating were received bringing the total to 214 farmer applications.

The containment program for leafy spurge in the major drainage basins continued, with an increased number of biological controls in place. The Alberta Environmental Centre was involved in this project.

The eradication of diffuse and spotted knapweed and nodding thistle was essentially completed. Scentless chamomile moved into the region from the north, probably via hay and seed. Dodder, a parasitic weed, was found in one field of sugar beets and was controlled by roguing.

The early fall rains and generally mild weather were excellent for fall seeded crops, but later rain delayed seeding past the optimum seeding dates.

Livestock producers experienced pastures which were fair over the summer months and excellent in the fall. As a result, cattle were in good condition going into the winter. This, coupled with an open winter and abundance of winter feed supplies, resulted in cattle overwintering in good condition with calf losses at a minimum.

Although the cattle industry as a whole benefited from the feed grain market adjustment program, the benefit to feeding operations was most apparent. An over-supply of hay and barley along with a high initial wheat board barley price resulted in many feeders purchasing an inventory of relatively over-priced roughage. This kept the feed cost of gain higher than it could have been.

Hog producers in the area continued to experience improved returns in 1986-87. Many producers, as a result of lower feed prices, achieved record levels of profitability during the latter half of 1986.

A steady increase in sow numbers was seen among the Hutterite colonies, although only a moderate increase in numbers among other producers. The major thrust of the industry in the south was improvement in herd health and an overall improvement in productivity.

The dairy industry was basically unchanged from a year

ago, continuing to be one of the most profitable industries in the region.

Producers in the region were faced with continued financial problems due to the two previous years of severe drought and the current year's untimely rains during harvest which ultimately resulted in grade reductions. This coupled with declining commodity prices continued to erode net farm income.

There was increased demand for financial advice, technical and production economic information, and an analysis of what alternate courses of action might produce more positive financial results.

The "Gear Up Financially" courses experienced another successful year with an expansion of the program from six districts to 10, and an increase from 40 farm families to 110 farm families. The course was revised somewhat to include changes in those areas which instructors and students deemed useful.

The consulting program, involving six consultants and two regional economists continued to be in high demand, with 72 farmers receiving the service.

District and regional staff, working with commodity groups and agribusiness, planned production and economics seminars, as well as farm management and marketing courses. With the financial squeeze facing cereal producers the topic of crop alternatives was extremely popular during the winter meeting season. The total number of tours increased this year, with the salinity, holistic grazing, and crop alternatives tours (pulse, sunflower, safflower and corn) being among the best attended.

The Farming for the Future on-farm demonstration program continued in 1986-87. A majority of the funding went toward renewing projects (21) from previous years so that the required information could continue to be collected. Poor fall weather conditions forced many projects to resubmit for funding as no data could be collected.

Five new projects were approved during the year, dealing with winter canola, subsurface irrigation, soft white winter wheat, the control of shrubby cinquefoil and dryland alfalfa variety and fertilizer trials. Many final reports were submitted.

Very close liaison with the Agricultural Development Corporation (ADC) continued, particularly in the areas of production. Regional specialists worked closely with loans officers on many loan applications. In addition, district staff held 3,323 client interviews dealing with farm management and credit.

The lack of trash from last year's light crop combined with high winds, grasshoppers and erratic rainfall patterns triggered another year of soil erosion. The agricultural service boards continued their major efforts in soil erosion and weed control. The region's agricultural service boards jointly hosted the 1986-87 provincial service board conference in co-operation with Alberta Agriculture staff.

District staff continue to support agricultural society activities in rural areas. They also provided support and advice to co-operative seed plant boards.

The agricultural water pumping program was very active in the region during the 1986-87 pumping season. Approximately 205 dugouts were filled for farmers and ranchers.

Emphasis in 4-H was placed on leadership training and development, along with project enhancement and 4-H promotion. At year's end there were 79 clubs registered in the region with 1227 members and 298 leaders.

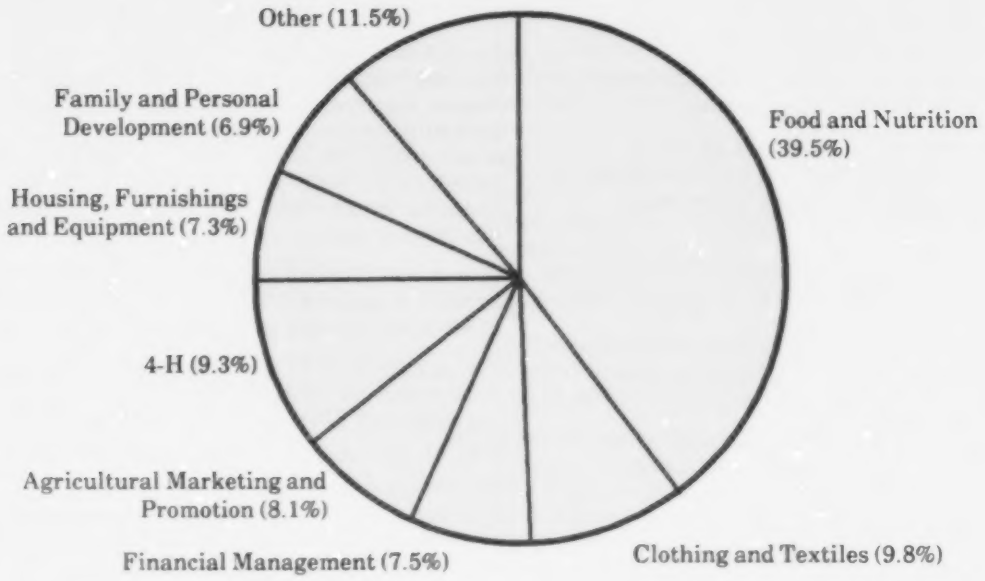
District and regional staff prepared 280 news columns and radio broadcasts increased from 186 in 1986 to 247 in 1987. *Agrivision* was cancelled in 1986 after 11 years as the main agricultural educational television show for southern Alberta. There were 29 other television appearances. Newsletters increased to 833.

Over 90,000 people attended Ag-Expo'87 held in March. All exhibitor spaces were used and the international seed fair component had more entries than in 1986. Entries and exhibits came from Canada, Hungary, the United States, Australia, New Zealand, England and Denmark. A total of 122 seed entries were received.

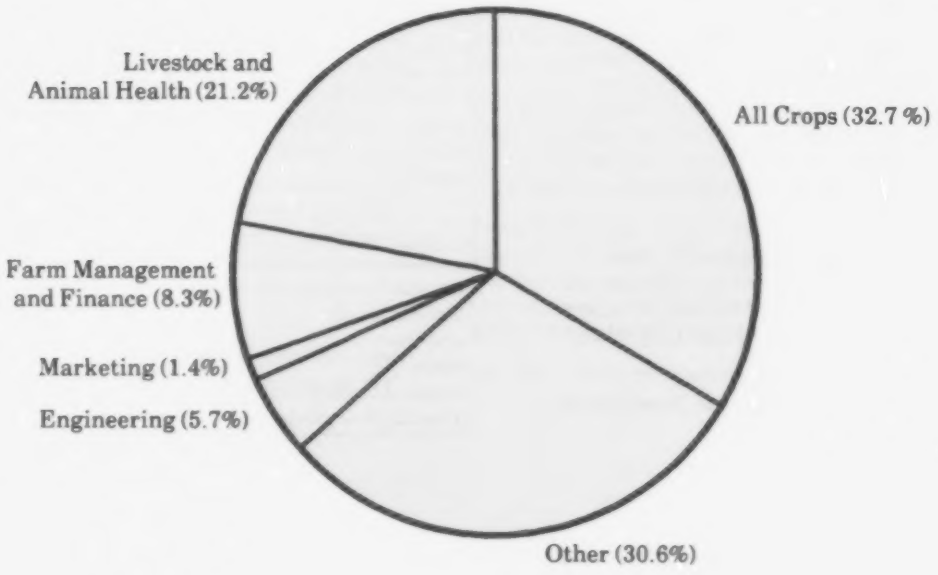
NUMBER OF CLIENT CONTACTS	
Interviews	44,714
Telephone calls	43,427
Farm visits	3,256
Letters	1,315
Educational programs	210
Attendance at programs	5,163

REGION 1

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



REGION 2 - SOUTH CENTRAL REGION - AIRDRIE

1986 was a very difficult year for the region's crop producers because of unseasonal weather throughout. The region experienced a dry, windy April, a mid-May blizzard, an unusually wet July, frost in mid-August followed by heavy rain, and snow throughout September. Harvesting was delayed until October or later and while yields were generally very good much of the cereal and oilseed harvested graded poorly, to as low as feed quality, and resulted in lower returns.

Livestock and poultry producers had a better than average year with increased supplies of lower priced feed grains and forages and strong market prices. This prompted a build up of basic herds and new entrants planning to take advantage of livestock as a means of marketing surplus crops.

The feed grain market adjustment program was effectively promoted through all district offices to encourage producers to understand the benefits and take advantage of the opportunity to strengthen the region's livestock base.

Demand for the department's water pumping services was reduced with improved water supply throughout the season. Only 35 dugout requests were serviced.

District agriculturists supported all agricultural service boards in their increasingly important activities related to minimizing weed problems, grasshopper control and demonstrating soil conservation practices. Demonstrations of chemical fallow, minimum till seeding into stubble to prevent erosion, and the use of annual cereals and legumes seeded into summerfallow to provide forage as well as prevent wind erosion were effectively carried out by all boards and promoted to area farmers.

Programs intended to reduce producers' production costs or remove uncertainties as much as possible, were delivered to eligible producers through district offices. These included the fertilizer price protection plan, grasshopper chemical control rebate, water dugout rehabilitation and development program, livestock drought assistance program fuel rebate program and red meat tripartite stabilization. Assistance was also given to producers wishing to access the farm credit stabilization program and the federal acreage payment program. In total, district office staff serviced 30,736 producer requests for information or application assistance for these programs.

Use of grant funds provided through the Farming for the Future program to support practical demonstrations of new technology continued to increase in popularity. Forty-eight projects were either renewed or new applications approved during the year totalling $87,100 in grants. Area producers appointed to the region's research review committee proved to be invaluable in evaluating, approving and assisting with the promotion of these projects when in place. Projects covered the use of cereals for forage to extend grazing season and relieve drought-stressed overgrazed pasture, annual legumes for forage, special crops, varietal trials, conservation practices, and new techniques and equipment for improving livestock production. These were promoted to area farmers through tours, newsletters and media.

With the continued downturn for grain market prices to negative margin levels, especially for the lower grades that made up the bulk of producers' 1986 harvest, the financial position of a large percentage of the region's farmers continued to worsen. Requests by farm couples for advice and assistance to achieve a better understanding of their financial status received major emphasis by staff.

There were 102 families at eight locations in the region who took full advantage of "Gear Up Financially" training to develop a set of useful records and learn how to use them to make management decisions about their farm operation and when dealing with lenders. In addition 35 farm families requested consulting services from consultants hired under that component of the farm financial management initiatives program. District staff and specialists dealt with more than 2,000 producers on farm business and financial concerns of their operations.

District agriculturists carried out 218 extension programs covering innovative production technology, farm marketing strategy and a wide range of management practice to improve farm income. Seven thousand producers attended these courses over the winter.

Close liaison was maintained between Agricultural Development Corporation (ADC) staff and the region's district agriculturists and regional specialists. Production advice and input on overall farm planning were provided to loans officers.

District agriculturists continued to help plan and assist with community activities carried out by agricultural societies in the region. Particular emphasis was given to agricultural fairs and farm product shows.

District agriculturists also supported municipal co-operative seed cleaning plant boards. Rebuilding of the Carstairs plant was completed, allowing it to commence cleaning operations early in the spring of 1987. Total seed plant volume of grain cleaned declined for the year as a result of poor grain crops in 1986.

4-H program activity in the region supported 56 clubs with 910 members. Two hundred and sixty-seven leaders delivered the club program. This was a drop of six clubs and over 200 members from the previous year. A major program during the year was 4-H "On Parade", carried out in co-operation with Calgary Stampede staff. Four hundred club members representing 40 clubs participated. Other significant 4-H events were: the Alberta 4-H leaders' conference, hosted by the region, and the Calgary 4-H Leadership Weekend event, attended by 180 leaders.

There were 36 training farms with 53 trainees under the green certificate farm training program. At three testing sessions in the year 38 trainees received their certificates.

The region's district home economists were active in the "Gear Up Financially" courses delivered at eight locations. They co-ordinated delivery of 13 lessons at four locations, and instructed the lessons at all locations on subjects dealing with goal setting, decision making and managing family living expenses. District home economists made follow up farm visits to all course participants to provide in-depth information and assistance about record keeping systems, setting up a farm office, filing systems and financial security.

The farm family expenditures study (FAMEX) project, involving over 50 farm families who recorded all living expenses and received ongoing analysis, was carried out by home economists in all districts.

The rural agriculture products promotion (RAPP) program was promoted in all districts by home economists. It was successful in increasing awareness by rural Albertans of locally processed products.

Ongoing media presentations by home economists resulted in a significant increase in requests for follow up and educational programs. One-day conferences targeted at farm women were held in four districts with themes ranging from "Farm Women: Decision with Vision", "In Search of $5.00 Barley", to "Women in Agriculture - Accepting the Challenge". All were aimed at increasing farm women's skills in time and financial management and to help them recognize their importance as partners on the family farm. Additional programs included: Two Families on the Same Farm, Coping with Pressure Farming and Farm Estate Planning - A Family Affair. District home economists also provided support to the 4-H program.

With support from provincial home economics specialists, staff participated in a Farming for the Future project on disposable clothing for pesticide handlers. Home economists promoted pesticide safety at numerous agricultural fairs, production meetings and field days.

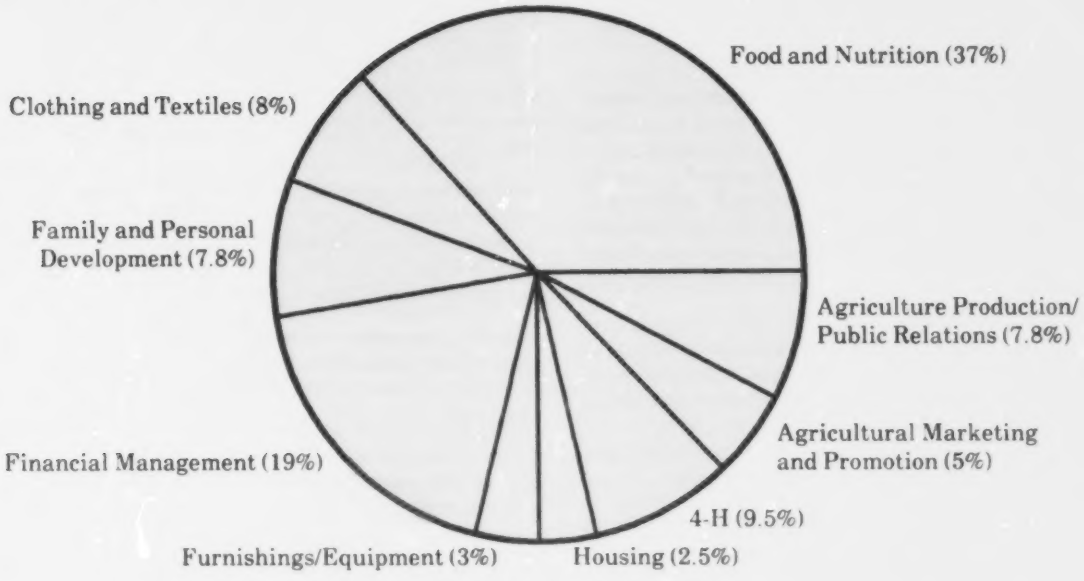
Foods and nutrition continued to be the area in which the highest number of client contacts were made. The nutrition at school program reached over 13,000 children attending 54 elementary schools.

Agricultural societies received support from district agriculturists and home economists in planning and carrying out local programs and services.

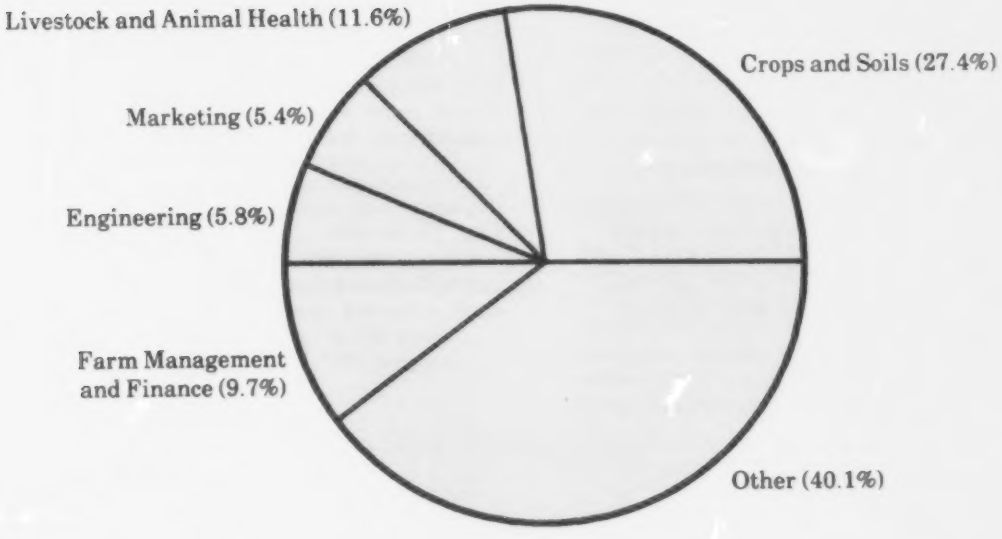
NUMBER OF CLIENT CONTACTS	
Interviews	35,239
Telephone calls	42,287
Farm visits	3,090
Educational programs	670
Attendance at programs	17,494

REGION 2

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



REGION 3 - NORTH CENTRAL REGION — RED DEER

The region experienced above average rainfall in 1986-87. Early summer rains caused major flooding and crop lodging in the western half of the region. A mid-August frost and continual fall rains dramatically reduced crop quality. An estimated 20 per cent of the crop was unharvested in the counties of Red Deer and Lacombe and the M.D. of Clearwater.

Pastures and hay yields were good, although hay quality suffered due to summer rains. Silage crops were excellent. Cereal and canola yields were average but much of the barley graded number 2 feed and considerable canola was Canada No. 2 or 3. Field pea acreage was up considerably, mainly in the Counties of Lacombe and Camrose. Surplus feed supplies resulted in prices of $30 per tonne for hay and $1.40 per bushel for barley.

Weed control was normal although infestations of perennial weeds such as quack grass and scentless chamomile increased. Aerial applicators were able to meet demand. Several agricultural service boards continued to co-operate on a major scentless chamomile control program, which included posters, media contact, hay inspection and spraying programs. Wild oat control was generally not satisfactory.

Insects were not a major hazard to crop production in 1986-87, except grasshopper damage in the eastern portion of the region. Net blotch and scald resulted in significant yield losses in cereal crops.

District home economists continued to co-operate with agricultural service boards, agribusinesses and other department staff in the promotion of protective clothing and pesticide safety.

The lower than normal crop quality and prices continued to result in added financial hardships for many farmers and agribusinesses. This was compounded by the cash flow problems of the previous year and the large debt load of many farms. Input costs again marginally increased from the previous year.

Considerable volumes of barley and canola were carried over. However, livestock feeders did provide a market for low quality feed grains. A few reports were received of feeding poor quality, raw canola. Peas as a substitute for soymeal created considerable interest in the hog industry. Little fall tillage, fertilization or application of soil incorporated herbicides was accomplished.

Calf prices were as high as $1.25 per pound. Heifer retention was above normal as cow herds began to expand. Grassers showed high profits. High feeder prices tightened feedlot margins. This combined with surplus feed grain and the Alberta feed grain market adjustment program resulted in increased numbers of custom fed cattle as feedlot owners sought to reduce risk.

Hog producers generally had a profitable year. Profitable margins, long-term price stability with the tripartite red meat stabilization program and lower feed costs resulted in expansion in the industry through both increasing scale of existing operations and new entrants.

The dairy industry remained stable. Several operations changed owners as British Columbia dairymen moved to Alberta. Some difficulty was experienced in obtaining high quality forages.

1986-87 saw increasing financial difficulties on many central Alberta farms. Many of these had leveraged their position in the late '70s and early '80s. Lenders reported that one to two per cent went bankrupt or sold out, that a further 10 per cent of accounts are in serious difficulty and that 22 to 25 per cent of accounts are in arrears. Lenders reported major financial worry and stress in their farm clientele. The farm credit stability program allowed many to refinance over a longer term.

There was a continued erosion of equity due to falling land prices. Land near Coronation was selling at $200 to $300 per acre down about 50 per cent from 1979-80. Similarly, land around Red Deer was selling as low as $550 to $600 per acre, down about 60 per cent from 1979-80. Many farms were not sold as owners were reluctant to reduce expectations. Most farms in serious financial difficulty have a major land debt.

The number of clients contacting the Agricultural Development Corporation (ADC) continued similar to 1985-86. The number of people receiving loans declined slightly but the number seeking financial counselling increased significantly.

Individual financial counselling sessions (of varying degrees of complexity) were carried out by district staff and by the consultants employed under the farm financial initiatives program. Financial management continued to be a priority for the region with instruction of 313 short courses with an attendance of 5,797. These efforts were highlighted by nine in-depth financial management courses conducted for 123 farm families. District efforts in farm and financial management nearly doubled from the previous year. District staff increased liaison with local banks and accountants.

1986-87 saw continued heavy demand on district offices for administration of various support programs. Excluding program administration, district staff conducted 30,117 office interviews and responded to 40,389 phone calls. These contacts sought a wide range of production, management, marketing and finance information. Staff conducted 3,684 farm visits.

A wide range of farm business management information was delivered, focusing on agricultural and home economics, finance, marketing and human resource management. A much higher demand, relative to previous years, was seen in the areas of finance and management. Regional seminars included the "Gear Up Financially" courses, grain marketing, profitable crop management, dairy management, beef herd management, silage production and utilization, partners in farming, wills and estates, farm records and beef marketing. Several of the seminars were conducted jointly with forage associations, the Alberta Canola Growers, the Western Barley Growers, the Alberta Cattle Commission and numerous community groups. Three lenders seminars were held for central Alberta bankers in the areas of cow-calf, swine and dairy production and management.

As a follow up to extensive consulting with the accounting industry, district home economists made a major commitment to the priority program of record keeping. Ninety farm families in the region participated in the farm family expenditures study (FAMEX).

The promotion of Alberta food products, as a facet of district programming, continued to expand. District home economists at Rimbey, Rocky Mountain House, Sedgewick and Stettler participated in the rural agriculture product promotion (RAPP) program.

The eight conferences planned for farm women were well attended. There was increased interest in sessions on human resource management and how to supplement farm income. Production courses aimed at farm women increased in popularity.

Publications that were developed included newsletters, joint publications with agricultural service boards and forage associations, and several production cost budgets that were used in financial consulting with farm families and banks. Computer software was developed and used extensively to assist in counselling farm businesses on a wide range of management practices. District home economists and district agriculturists continued to use local newspapers, radio and television in their education programming.

Several district and regional staff members continued to be heavily involved in field applied research projects. Work with agricultural service boards and forage associations continued to expand in 1986-87. More than 80 applied research projects were conducted with help from the above mentioned agencies and the on-farm demonstration program.

District home economists co-operated with the Lacombe Research Station on consumer acceptance studies for both lamb and beef. The commitment to help the industry determine grading standards and consumer preferences will benefit all producers, retailers and consumers.

The upgrading of intensive livestock facilities continued. New construction and renovation of hog barns resulted in numerous requests being directed to the region's engineering staff. Continued efforts were made in the area of building troubleshooting, livestock environments, water supply systems and grain drying/handling systems.

Although interest has decreased, district agriculturists continued to provide input into subdivision proposals and siting of intensive livestock facilities. District staff members attended 819 meetings as a result of their involvement with agricultural societies, seed cleaning plants, rural crime watch, agricultural development committees, forage associations, 4-H clubs, agricultural service boards and further education councils. Ten service boards were active in the region. The green certificate program involved 57 farm trainers and 62 trainees. Staff provided numerous consultations on farm labor in addition to the green certificate program.

There were 137 4-H clubs (2,076 members), 14 district councils and two regional councils active in 1986-87. The primary focus of efforts was leadership development for 4-H club leaders and assisting them in programming for their members.

Staff continued to help resource many large provincial events, such as Agri Trade, Grow Show, Western Barley Growers Annual Conference and Pork Congress.

During Agriculture Week several districts participated in school, shopping mall and evening promotional dinner activities.

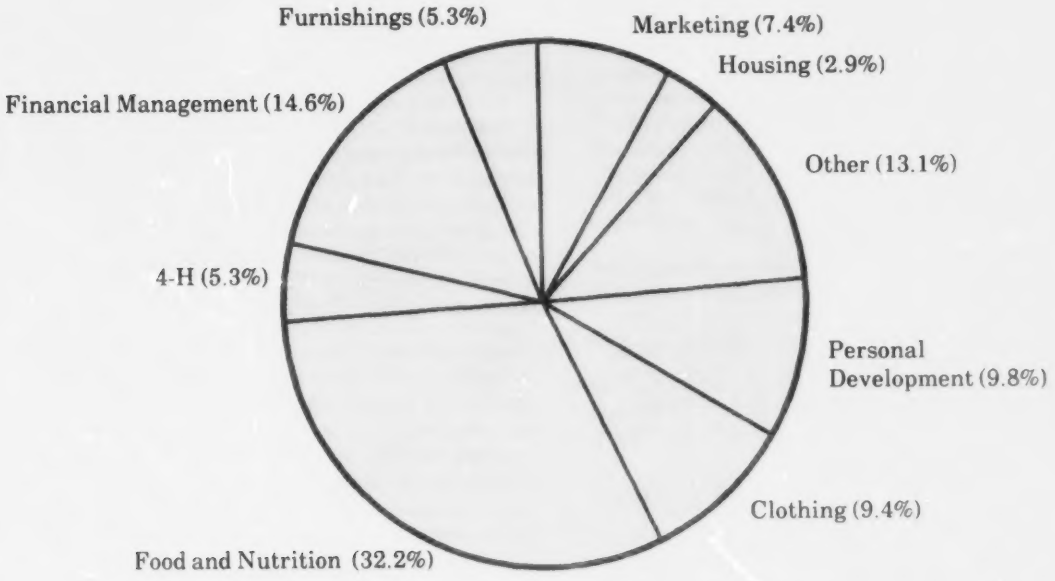
Continued financial pressures, low market prices and weather challenged staff to provide in-depth practical management information to an increasingly worried farm clientele. Farm family interest in stress management, coping skills, farming the markets, financial management, supplementing farm income, risk management and seeking ways for improved farm profitability were areas requiring major efforts.

NUMBER OF CLIENT CONTACTS

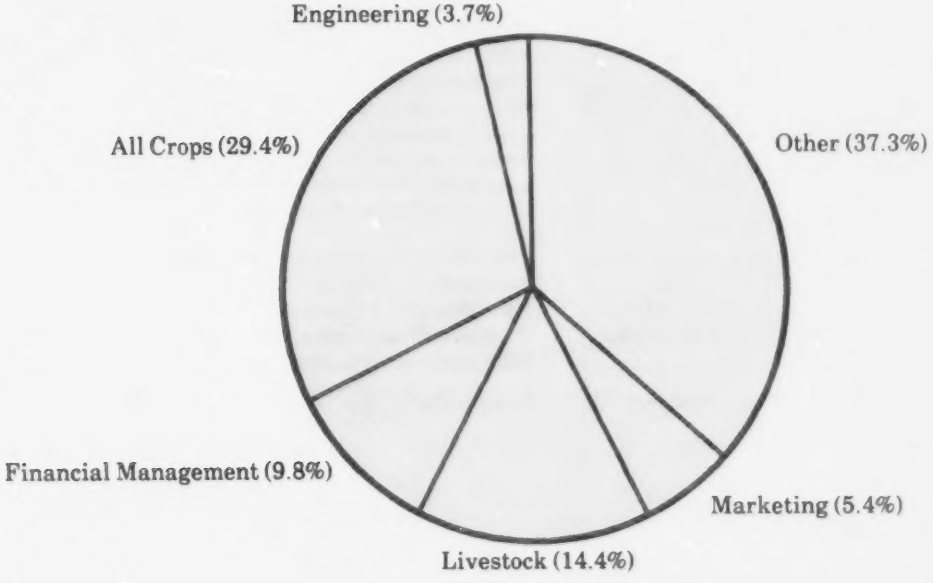
Office interviews	55,727
Telephone calls	55,327
Farm visits	3,684
Educational events	996
Attendance at programs	26,590

REGION 3

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



REGION 4 — NORTHEAST REGION — VERMILION

The 1986-87 year was an extremely challenging one for farmers in the northeast region. Low grain prices and poor grades affected the benefits of generally excellent crop yields. Higher prices and lower production costs combined for a somewhat better financial situation for livestock and dairy producers.

Cropping conditions during the year were generally favorable although adverse weather in late fall seriously affected crop quality. Livestock producers, however, enjoyed the good to excellent growing conditions which produced above average feed supplies. This, combined with an exceptionally mild winter, resulted in substantial feed supply carryover by spring.

Financial pressures and problems continued to be a major subject for staff contact with producers in the region. Many farmers experienced serious to severe financial hardships during the year — especially those with above average debt to equity ratios. Grain farmers in general were the most strongly affected, although many mixed and livestock based operations experienced similar problems.

Farmers in the region continued to increase the amount of land used for continuous or minimum tillage cropping. Summerfallow acreage remained relatively unchanged in 1986. Perennial weeds were an increasing problem on land subjected to continuous cropping or minimum tillage. Plant insect pest problems were minimal during the year. In the southeastern portion of the region virulent blackleg of canola became established in a number of areas. Staff initiated a major information and awareness campaign to combat the disease.

Considerable extension efforts were focused on the soil salinity problem in the region. These efforts also included provincial, federal and municipal agencies and staff. The problem is further complicated by the large amount of solonetzic soil in the region. Conservation fallow, plowdown crops and deep ripping were the other major soil related activities.

Field crops production continued to centre on wheat, barley, canola and oats although there was a large increase in lentil acreage. The need for further research, demonstration and market promotion for pulse crops became evident during the year.

Pasture and hay crops started the year in generally poor condition. Excellent rainfall during the growing season produced a marked reversal of this situation by fall. Hay yields were generally high but quality was only fair to poor. Large supplies of hay and straw combined with an unusually mild winter caused prices to decline steadily throughout the year. Most forage seed was in short supply during the year and commanded a high price.

Forage variety demonstrations were used extensively in the region during the year. Producers responded very favorably to these demonstrations. As well, several on-farm demonstration program projects involving pasture and grazing management were carried out. These projects played an identifiable part in improving the overall management of forages for grazing in the northeast region.

Of special interest was a quality tested hay auction held in the Bonnyville district in October 1986. This sale was the first of its kind in Alberta and initiated two similar sales later in the year in other areas. Eight hundred and fifty tons of feed were sold on the basis of quality, weight and package size. The auction sale created a much greater awareness of how quality, price and marketing are interrelated.

Livestock producers enjoyed a much improved year overall. There were 162 dairy producers in the region at the start of the year. This number dropped to 155 by the end as several producers took advantage of high milk quota values and sold their operations. Towards the end of the year a growing interest in new dairy operations was noted.

Attractive beef prices during the 1986-87 year, along with lower feed costs, resulted in some build up of beef cow herds for the first time in several years. Increased use of the feed analysis service occurred along with a greatly expanded use of a computerized feed formulation service. Livestock producers realized substantial benefits in terms of feed cost reductions and improved productivity.

The beef herd management program was introduced during the year with good initial response. Tripartite red meat stabilization received a favorable response from beef feeders but a less than favorable response from most cow-calf producers.

Hog producers enjoyed a similarly positive situation to

that of beef and dairy producers. As a result hog numbers in the region are estimated to have increased by about 10 per cent during the year. Producers showed strong interest in nutrition, production management and facilities, while breeding management and record keeping remain areas needing improvement.

Field services staff in the northeast region continued to meet the challenges faced by farm families during the year. There was a continued emphasis on remedial services and assistance, along with a strong involvement in providing intensive in-depth counselling and analysis on production, management and financial concerns.

In 1986-87 district home economists incorporated sound financial management principles in all programs and services offered. They emphasized financial management, agricultural products promotion, foods and nutrition, clothing and housing. Six district home economists were involved in "Gear Up Financially" courses. As well, three others participated in follow up sessions for participants of last year's courses. Other major program participation included the provincial farm family expenditures study (FAMEX), record keeping and accounting courses, wills and estate planning courses, the rural agriculture products promotion (RAPP) program, nutrition at school, 4-H, farm safety and Agriculture Week.

District home economists continued to work closely with agricultural service boards on a variety of projects. One especially successful activity was the series of three sub-regional womens' conferences held in early 1987. The three conferences, which focused on marketing, planning, human resource management and home economics information, drew 820 participants.

District home economists provided assistance to clients in almost 55,000 situations involving individual contacts and attendance at meetings and courses.

District agriculturists spent a substantial amount of their time on the various support and assistance programs that were provided to farmers during the year. Client contact in this area alone exceeded 23,800. Crop production and management continued to be a major focus area for district agriculturists along with soil and water conservation and management. Farm financial management, credit and marketing activities increased over the previous year while activities related to livestock and engineering decreased slightly.

The number of production and management related intensive counselling sessions with clients increased during the year as more producers sought help with individual problems and concerns.

District agriculturists placed increased emphasis on education meetings and courses which showed an increase of 67 per cent over the previous year.

Regional specialists concentrated on providing up-to-date and localized information on production costs and returns as part of all meetings and courses. Marketing, grain and oilseed hedging, and record keeping were also emphasized.

4-H activities were centered on leader development, communication, project development and promotion. The region had 68 clubs for the 1986-87 year with a total membership of 1,015.

Trainees on the green certificate farm training program achieved 25 certificates. In addition, several trainees worked on their Level III programs.

The farm financial management initiatives program continued to be a major area of involvement with farm clients. A total of 70 families participated in six "Gear Up Financially" courses. The financial consulting service provided assistance to 39 families in preparing financial plans for their farms. Four record keeping and business analysis workshops were provided through the farm accounting assistance section of the program.

Activity through the Agricultural Development Corporation (ADC) offices in the region included 129 beginning farmer loan applications in the amount of $13,208,635 and 18 other loan applications in the amount of $3,486,200 for a total of $16,694,835. Land purchase continued to be the main loan purpose. Total lending activity decreased 20 per cent from a 1985-86 level of $20,885,664. The decrease in lending activity was offset by an increase of 37 per cent in collection and counselling activities and a 25 per cent increase in financial management counselling.

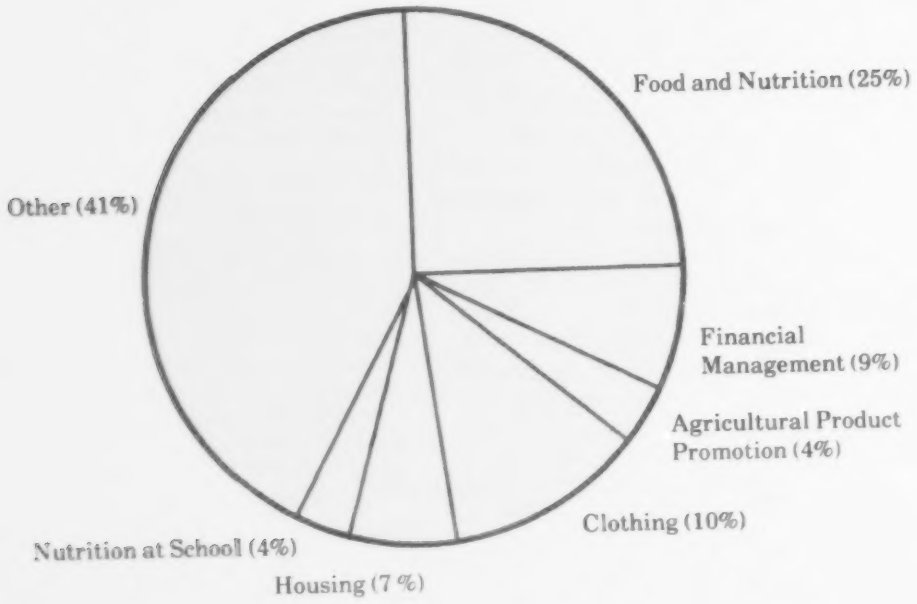
As of December 31, 1986 14 new on-farm demonstration program projects and five renewals were approved by the regional review committee for a total of $56,418. A tour of several demonstration projects was carried out by the review committee members in 1986.

An average of 10 agricultural service board meetings were held in each district.

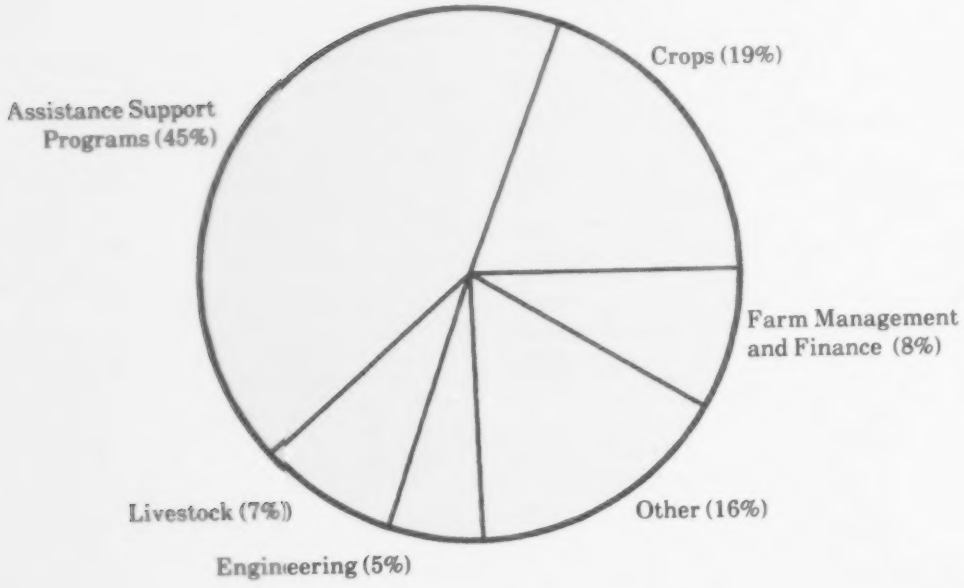
District staff participated with a wide range of committees, boards and associations during the year involving over 600 meetings. Forage, livestock, and cereal and oilseed groups made up the bulk of the associations with whom staff worked.

NUMBER OF CLIENT CONTACTS	
Interviews	50,462
Telephone calls	46,827
Farm visits	3,565
Educational programs	1,086
Attendance at programs	41,184

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



REGION 5 — NORTHWEST REGION — BARRHEAD

Annual crop yields in 1986 were about five to 10 per cent above the recent five-year regional average. Drought conditions in late May and early June caused some germination problems and subsequent scattered showers resulted in a considerable amount of second growth. Post emergent weed control was adversely affected by the various stages of crop and weed growth.

The dry conditions in early spring resulted in significant yield reductions in first cut hay crops. Quality, however, was excellent for all hay baled before the end of June. At that time extensive rainfall started and lasted throughout most of July, virtually halting all haying operations.

The heavy July rains (175 per cent of normal) caused widespread flooding along major river systems and creeks in the region. Major damage occurred along the North Saskatchewan, Athabasca, Lobstick and Pembina Rivers, with the severity of flooding being greatest along the Pembina. In total, nearly 70,000 acres of annual crops, hayland and pastures were affected. Of these flood damaged acres, about 56,000 were on the Pembina River system. In addition to crop losses, the flood waters caused damage to several homes, farm buildings and water supplies as well as erosion and siltation. Clean up was a major undertaking and in many situations took the balance of the summer and fall to complete.

August was extremely dry, allowing for early second cut hay crops to be baled in excellent condition. Similarly, annual crop harvesting proceeded well until mid-September, when a month-long rainy spell again plagued farmers. About one-third of the crop was taken off in good condition before the fall rains. The balance was weathered and in some cases sprouting was extreme.

Since the wet fall weather was province-wide, traditional malting barley growing areas were adversely affected, thus allowing for better malting markets for the region's barley that was combined in good condition. Marketing of feed barley was also very active in the region as contracts offered by the Canadian Wheat Board were well accepted. Prices were generally in the $1.40 per bushel range as compared to $2.10 per bushel in the previous crop year.

Another market which opened for farmers in the region was for pony oats. In excess of 400,000 bushels moved into the racing circuits of the United States. Although small initially, these and other special crop opportunities intrigued grain producers who were desperate for additional cash flow. Requests for information on field pea production in particular were overwhelming during the winter extension season.

Cow-calf enterprises enjoyed a very strong market for calves. Prices in the fall of 1986 generally ranged from $1.00 to $1.20 per pound, an increase of 15 to 20 cents per pound over the previous two years. This increase in price of calves and feeder cattle was brought about by low feed grain prices and generally increasing fat cattle prices. A1, A2 steers were selling in the 70 cent range in early 1986, mid 75 cent range by the fall of 1986 and were well over the 80 cent mark by the spring of 1987. Grass cattle showed excellent returns as producers experienced a three to five cent positive margin from spring to September. Good breeding cows were being sold for $800 to $1,000 in the fall of 1986.

1986 was a milestone year for hog enterprises in the region. Prices reached an all time high of $1.02 per pound on August 22, 1986 and remained strong until the end of the calendar year. These strong prices combined with low feed prices produced good net returns for hog producers.

The dairy industry continued to be one of the most stable aspects of the regional agricultural economy. There was a normal turnover of dairy farms with numbers declining slightly over the year. The majority of new dairy producers came in from out of province, with most coming from British Columbia.

Dairy producer returns were reduced for the first time in many years because of cheaper feed costs. Prices fell from $51.07 per hectolitre in March 1986 to $48.13 per hectolitre at year end. Another significant event was the rapidly rising prices of MSQ and fluid quota, which were in the range of $13 per kilogram and $2.50 per litre respectively, by the spring of 1987.

Overall, the 1986-87 year was a difficult one to generalize in terms of cash flow problems and debt servicing. Grain farmers were in the most precarious position in this respect. On the other hand, many cow-calf, hog and dairy enterprises had record years. The grain farmer's demise of low feed grain prices proved to be the livestock producer's boon. Various provincial

and federal stabilization and special support programs helped both groups.

Numerous consultations with individual farm families were made regarding financial mangement, credit and marketing. In total, 14,826 contacts were made by district staff in these areas. Economic implications continued to be stressed in all extension activities, and regional cost of production data was collected for the third and fourth years, respectively, for cow-calf operations and cropping enterprises on better soils.

An additional study on forage rotations on Grey Wooded soils was commenced in 1986. Similarly, in 1986 11 districts were involved in a province-wide FAMEX study. Fifty-two families completed this study, designed to determine family living costs on farms today. Information gained from these ventures assisted producers and staff to make more accurate management assessments.

The financial management initiatives program continued into its third year. The financial counselling component of the program resulted in a further nine major consultations being done by hired consultants. As well, regional staff completed 112 such consultations. These consultants augmented the efforts of district and regional staff in conducting detailed evaluations. A second component of the program, the "Gear up Financially" courses, was successfully continued in 1986-87. Seven courses were offered throughout the region to a total of 75 farm families.

District and regional staff attended 817 meetings involving agricultural fairs, seed cleaning plants, rural crime watch groups, agricultural development committees, further education councils, various commodity and producer groups, 4-H clubs and agricultural service boards. A total of 962 news columns were written, 164 radio reports delivered and 19,294 publications distributed.

Regional programs included two seminars jointly sponsored with the Western Barley Growers and one sponsored with the Alberta Canola Growers. These sessions concentrated on the production of malting barley and on various marketing alternatives of barley and canola. Other regional programs included a fertilizer forum organized primarily for fertilizer dealers and their staff. Dealers from the northwest, northeast and north central regions attended.

A program entitled "Dairy Cattle Reproduction and the Lost Generation" was jointly sponsored with the dairy division. A third annual lenders' seminar was organized focusing on crop production and marketing. Several regional and district staff were also heavily involved in planning, organizing and promoting the Alberta beef symposium, held in conjunction with the beef cattle and sheep branch and the Alberta Cattle Commission.

An additional regional program on swine herd health was developed jointly with the Alberta Swine Breeders' Association. Smaller regional functions were co-sponsored with the Pembina Forage Association, the West Central Forage Association, the Alberta Pulse Growers and the Northwest Peat Soils Group.

The regional livestock newsletter entitled *Beef 'n' Bacon* was continued for its second year, with eight monthly issues being distributed from October to May to over 2,500 regional livestock producers. This project, designed to provide up-to-date information on nutritional and management matters, continued to be extremely popular.

A regional 4-H leaders' workshop was held to develop program planning, leadership and meeting skills. Six sub-regional and district farm women's conferences were held emphasizing financial management, farm safety, time management and nutrition issues.

The regional home economics newsletter continued to be produced with three issues being published and distributed to 6,000 farm families. One of these issues focused on the promotion of Alberta food products and received responses from over 600 individuals.

Several district and regional staff members continued to be heavily involved in demonstrations and field applied research projects. Work with agricultural service boards and forage associations in this regard was further expanded in 1986. The on-farm demonstration program continued to be extremely popular and 26 new and second year projects were submitted for review. The majority of them were related to pasture, special crops and forage management.

In the engineering field, most requests continued to be for information on adding to existing facilities and improving already established operations. There was an overall low cost approach to requests for information on farm structures, materials handling and machinery selection. The second wet harvest in two years resulted

in continued requests for information on grain drying, grain storage and aeration.

Provincial and federal government programs resulted in a further expansion and improvement in the region's water supply. Two hundred and fifteen dugouts were completed in 1986-87 compared to 111 in 1985-86. Similarly, 617 wells were developed in 1986-87 in comparison to 455 in 1985-86. The capacity of water supply systems continued to be about 30 per cent greater than in previous years, in keeping with efforts to properly size water capacity to increasing farm requirements. Priority was also given to proper layout and site selection to facilitate natural filling of dugouts.

The total number of Agricultural Development Corporation (ADC) loan submissions in 1986-87 was 136. This was down from the previous year (219) and reflected a general softening in demand for credit. Of these total submissions, 106 were direct loans and 30 were specific guarantees. The average loan submission decreased slightly to $103,500. Counselling and developing workout plans continued to be a major activity for ADC staff.

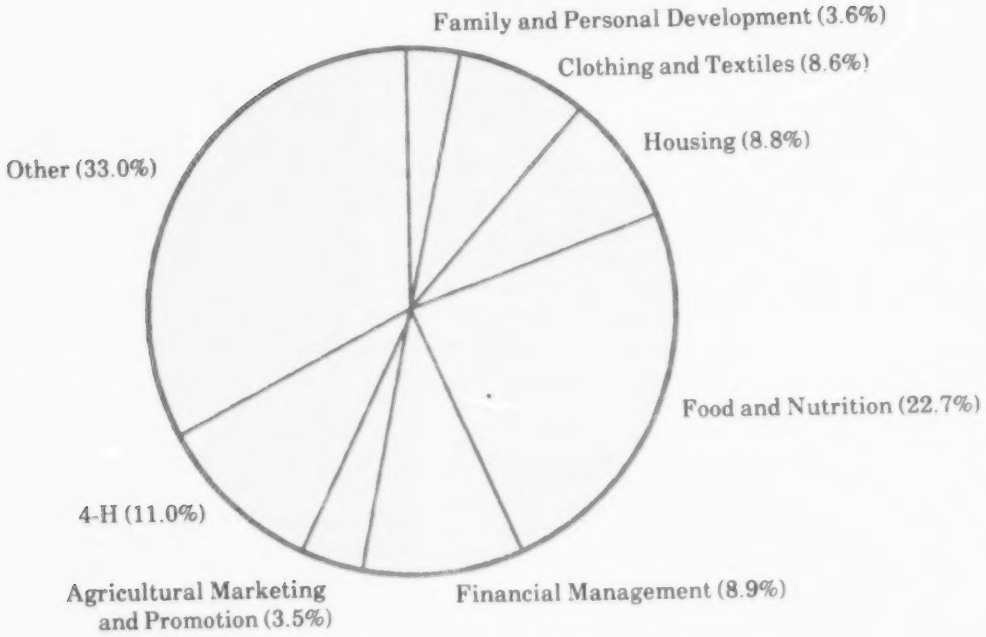
1986-87 saw an increase in the green certificate program with 46 trainees on farm at the end of the fiscal year. Total certificates earned during the year included 17 Level I and 8 Level II. An additional 10 trainees passed their Level II practical test and await the next testing session to complete the written component, and thus achieve certification.

The number of 4-H clubs in the region decreased slightly to 91. Total membership was 1,385 guided by 468 leaders. The trend continued towards multi-project clubs.

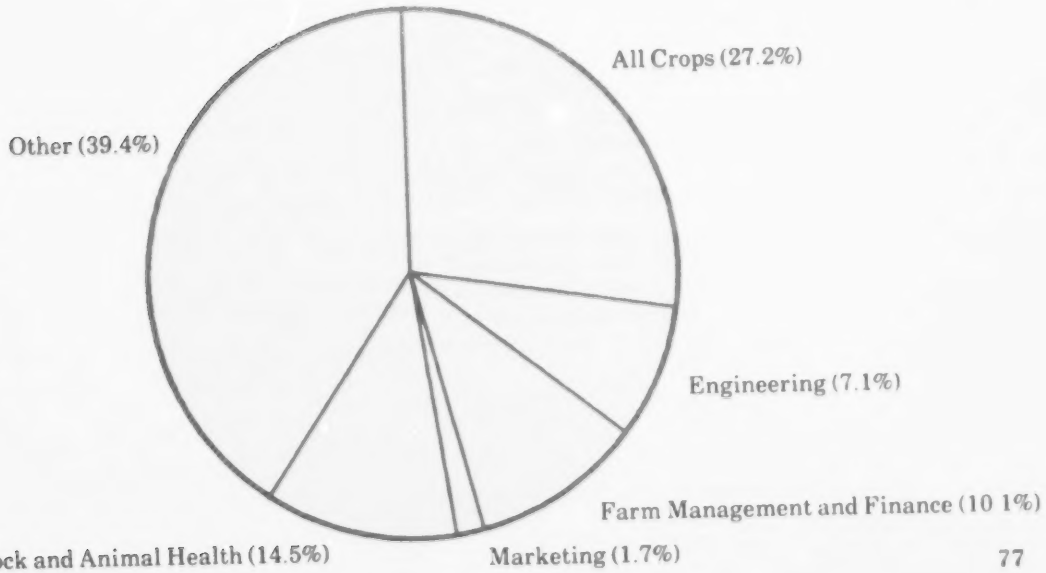
NUMBER OF CLIENT CONTACTS

Interviews	54,525
Telephone calls	45,816
Farm visits	4,709
Letters	7,053
Educational programs	1,009
Attendance	36,809

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



REGION 6 — PEACE RIVER REGION — FAIRVIEW

1986 began as a carbon copy of the spring of 1985. Approximately 30 per cent of the 1985 crop remained in the fields to be harvested. Seeding was delayed by spring harvest, unworked fields, rain and snow. With a depressed economy, inputs for fertilizer and weed control were reduced and, in a few instances, seed of questionable quality was used. A prolonged drought — 60 days without rain — affected the entire region except the Fort Vermilion area and the southwest portion, including the County of Grande Prairie, where frequent showers eventually covered most of the district.

The acreages sown to cereals and oilseeds featured a repeat of 1985 in that wheat, barley and canola acreage was almost equally split but with a slight overall reduction from 1985.

The drought broke on July 10 with one to four inches of rain being received across the region. Late seeded crops and forage crops recovered well. The long drought led to other negative consequences, such as substantial crop plowdowns, extremely late and second growth in crops, late and reduced levels of herbicide applications and poor establishment of newly seeded forage stands. Subsequently, most crops were more prone to frost injury which did indeed occur in the third week in August and the first week in September. Canola suffered the most damage where, despite good yields, about half of the grades were number 2 and number 3 and some even sample.

The early maturing crops of cereals and oilseeds were harvested without any problems. Producers received good grades and subsequently made substantial shipments of malt barley and some milling oats. Seed stocks generally were of very good quality.

The poor harvest conditions in southern Alberta saw much more malting barley than normally purchased in the region. This sparked a great deal of interest in the production of malt barley for 1987. However, the majority of the cereals suffered from the consequences of the weather which reduced quality and yields.

Harvest weather was much improved from the previous two years. It allowed for a reasonably early completion of harvest and for the completion of most of the field work. Farmers, learning from the previous two years, dried over half of their grain.

Forage seed crops were the bright spot of 1986 because of excellent seed prices and average to slightly above average yields. Brome grass and crested wheat grass featured record high prices.

All alfalfa dehydrating plants reported a good production year with total yields ranging from one and a half to two tons per acre.

The poor grain economy resulted in an increase in fallow to 736,000 acres from 600,000 in 1985 which was disappointing from a soil conservation outlook.

Cereal and oilseed prices continued their downward trend over the year. As the crop year closed, farmers were desperately trying to get deliveries made under the 1985-86 crop year. They were hindered by plugged elevators and a lack of rail cars. The Canadian Wheat Board "stopped the clock" on July 31, allowing producers to move their crop. The fact that the initial prices had dropped 25 per cent for grains delivered in the new 1986-87 crop year, provided additional incentive for producers to deliver all they could.

1986 also saw the establishment of a long-term plot arrangement through the donation of land by the Municipal District of Fairview. This land (32 acres) near the regional office, will enable specialists in the soils/crops areas to conduct research and demonstration trials over a long period of time without concern about land tenure.

The region continued its gradual build up in livestock numbers. As off-farm employment opportunities declined, farmers looked for other alternatives to maintain cash flow.

The cow-calf expansion in the Peace did not take place to the extent expected, perhaps because of a lack of fencing and handling facilities. To counteract this, a demonstration facility designed by regional staff was built by a local farmer. From this, a construction plan and a video showing the facility and cattle being handled in it was developed. A technician was hired to assist farmers lay out handling facilities and help with difficult construction problems. Twenty facilities were constructed and a sharply increased demand for this service is expected for 1987.

The continual reduction in breeding ewe numbers in the face of high lamb prices was puzzling.

Feed supplies were more than adequate for the region. Because there were good supplies elsewhere, very little was sold outside the region.

The Peace Country Beef Cattle Days were held simultaneously at Fairview and Valleyview. The producer-planned program was very successful with 200 producers attending the two sessions. Following a ranch tour to B.C.'s Nicola Valley, three more total beef groups were initiated in Debolt, Fairview and Spirit River. As a result of the tour, a new round bale feeding machine was purchased and an extended fall grazing season was introduced.

The planning for the Fairview regional bull test station was completed. The College Board of Governors committed $30,000 in financing and a management committee was formed.

The "Gear Up Financially" course was very well accepted in the region. A low-key advertising campaign involving local radio stations and newspapers was conducted. Seventy-eight participating families took part in nine courses taught by five instructors.

The record keeping course was reduced from three days to two. District agriculturists and district home economists saw a sharp increase in interest with several districts running three courses.

The consulting program continued to be well received with 73 new clients and 12 repeat clients. This compared to last year's 51 clients.

The regional farm economist developed a break-even price analysis computer program for the Valleyview seed plant to help provide budgeting and cash flow information. Several other plants have used or expressed interest in this program.

1986-87 saw the addition of two staff positions to the region. A regional marketing economist position was established serving regions 5 and 6. Initial work centered on in-service training for the new employee, particularly in the area of grains and oilseeds. A week-long course at the Canadian International Grains Institute in Winnipeg was attended. Activities were directed mainly at grains and oilseeds marketing with producer car seminars, outlook meetings and hedging seminars being held. A need was identified to do some extensive work on forage seed marketing.

The second position added was the regional soil and water conservation engineer. This position was established to handle the heavy load of work under the soul conservation area program (SCAP) and the farmland development and reclamation program (FDRP). The region continued to have about half of the provincial total for both of these programs. Other work involved meeting with local agricultural service boards to identify program problems and to develop procedures to reduce the turnaround time.

A major market outlet for oilseeds in the region was retained when it was announced that Alberta Terminals Limited would be taking over the Northern Alberta Rapeseed Processors crushing facility at Sexsmith and operating it as a multi-use grain handling facility and crushing plant.

Grain farmers in the Valleyview area continued their efforts to obtain an off-track grain handling facility.

The 4-H movement remained at a steady level with 48 clubs and 709 members. A new 4-H program, Kaleidoscope, drew 65 members and leaders to Fairview College. The three-day program involved delegates in 14 projects and recreation related select-a-sessions.

District agriculturists spent a great deal of time administering provincial and federal assistance programs. These programs created an additional 12,790 office interviews and an additional 5,332 phone calls.

The Agricultural Development Corporation's (ADC) lending activity declined over the year. This was offset by an increased amount of work done in loan revisions, quit claims and foreclosures.

Land prices and land rental rates dropped significantly in most areas of the region. Land values were 50 to 75 per cent lower than what they were several years ago.

The reduced availability of off-farm employment in the oil and timber industries further eroded the cash flow positions of many farms.

The largest ever Peace Region Farm Women's Conference attracted more than the maximum 250 registrants. The theme, "Changes and Challenges", looked at agricultural issues as well as the roles of farm women.

District home economists increased educational work in record keeping and farm management. The farm family expenditures study (FAMEX) provided information to families on their spending habits and their total dollar outlay to support the family. District home economist involvement with the farm accounting assistance program and the "Gear Up Financially" courses were also well received.

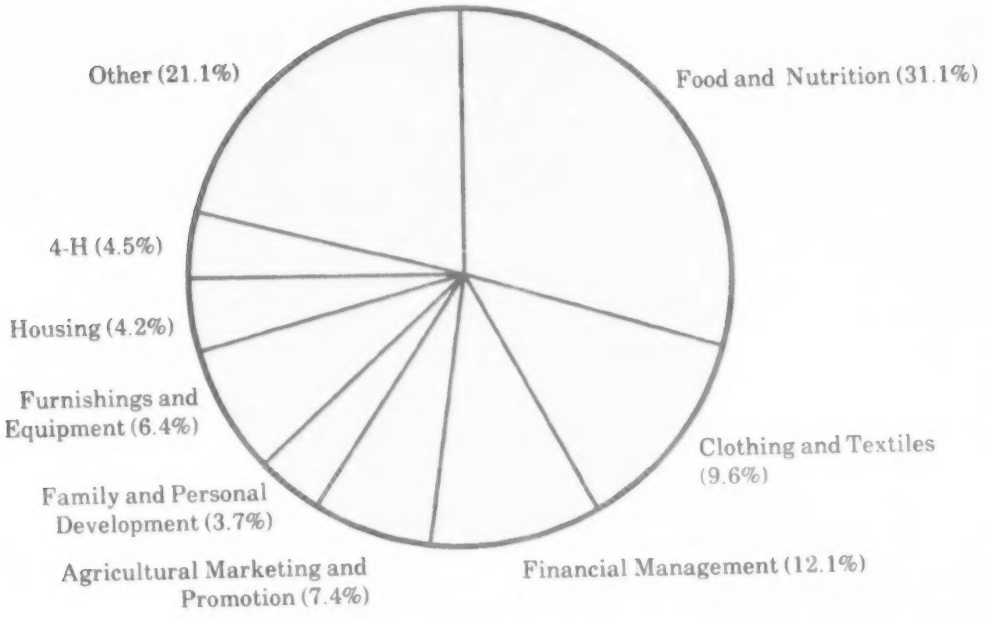
Farm safety received much attention with district workshops and displays, and a session at the farm women's conference. Subjects ranged from protective clothing to safe machinery use for farm women and teenagers. Additional programs were requested or planned after almost every workshop.

The rural agriculture products promotion (RAPP) program was carried out in five districts.

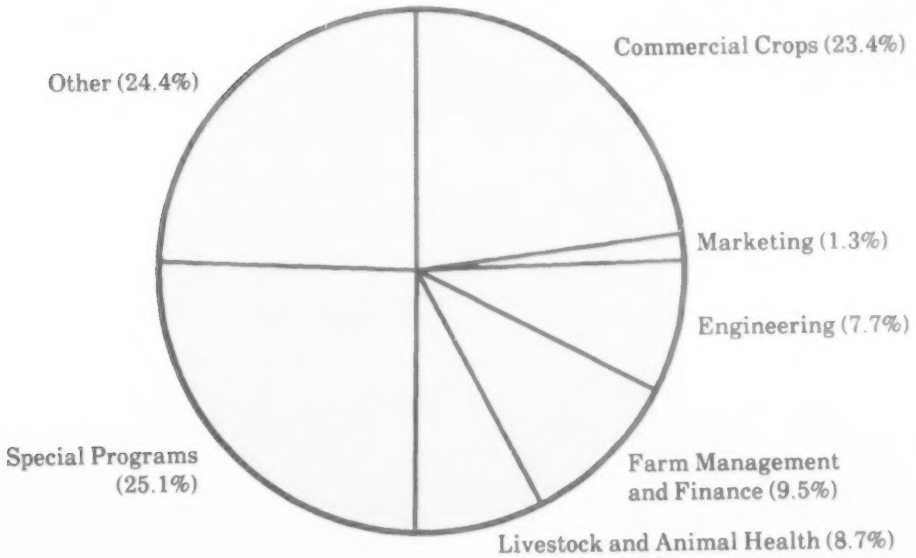
NUMBER OF CLIENT CONTACTS	
Office interviews	36,775
Telephone calls	36,728
Farm visits	3,343
Educational programs	659
Attendance	14,998

REGION 6

Home Economics Client Contacts by Subject Area



Agricultural Client Contacts by Subject Area



MARKETING

The marketing sector of Alberta Agriculture continued to provide assistance to producers, processors and marketers in response to the needs of the agricultural industry of Alberta. Developmental and support services were provided to processors and marketers of agri-products with the objective of adding value and improving the marketability of products of primary agricultural producers. The objectives of the marketing sector were fulfilled by:

- identifying and evaluating opportunities discovered in domestic and international markets.
- co-ordinating and supplying services in response to market opportunities.
- liaising with and utilizing private and public sector resources.
- developing marketing strategies in response to the needs of private enterprises.
- providing mechanisms for private sector input into departmental policy and planning.
- expanded policy and services in support of the development of free trade.
- renewed and extended support programs for the development of rural and urban agri-processing industries in Alberta.

Through its trade policy secretariat, and rural development, market development and marketing services divisions, the marketing sector provided a wide range of programs and services in support of Alberta's agricultural industry during the 1986-87 fiscal year.

MARKET DEVELOPMENT DIVISION

The market development division, responsible for both domestic and international market development, continued to provide consultative and financial assistance to Alberta marketers of agricultural commodities, processed food and feed products and technical services (consulting).

During 1986, Alberta remained a significant supplier of export commodities including wheat, barley, canola, cattle, swine, animal feeds, hides and skins. Alberta also exported large quantities of peat moss, semen, embryos, forage seeds, honey and malt. Export markets were developed and expanded for cheese, beef jerky, french fries, and numerous other grocery products. Sales of these products resulted in Alberta exporting approximately $1.67 billion worth of agricultural and food products to other countries. This amount represented 18 per cent of Canada's $9 billion export total of agricultural products.

The division continued to concentrate its efforts in 1986 in the area of value-added products, with meat and animal products accounting for $282 million worth of exports, canola products for $102 million, brewed and distilled grain products $50 million, and flour and milled cereals for $11 million.

While servicing the Alberta, North American and overseas markets, the division emphasized the following markets and commodities in order of priority:

Markets:
- Alberta, British Columbia and Quebec
- Japan
- Pacific Northwest (United States)
- California and other Western United States
- South Korea
- European Economic Community (United Kingdom and West Germany)
- Hong Kong
- Mexico
- People's Republic of China
- U.S.S.R.
- ASEAN (Association of South East Asian Nations)

Commodities/Products:

Meat	- beef, pork, horsemeat, processed meat products
Canola	- oil (refined and crude), meal, seed
Processed Food	- flour and pasta, processed vegetables and other grocery products

Livestock	- genetic stock (beef, dairy, horses and swine) - commercial and other livestock
Field Crops	- forage seeds, pulses, alfalfa, potatoes, sunflower
Other Products	- peat moss, honey, malt, malting barley, hides, offal, dairy products, vegetables

Services:
The market development division offered financial assistance, market development programs and advice to Alberta companies on market opportunities and methods of marketing commodities, products and consulting services. The division also provided support for consultants who provide transfer of technology and expertise out of Alberta on international development projects, e.g., large agriculture projects (infrastructure, production, processing, storage, transportation, distribution and marketing) and all aspects of rural development.

By emphasizing trade show participation and one-on-one industry contact in selected markets, the division encouraged Alberta companies to explore market opportunities, as well as the sale of technical information and skills. Numerous incoming and outgoing trade missions were arranged and hosted to further facilitate the export trade of Alberta firms.

In 1986, the Alberta food and beverage industry shipped a total of $3.81 billion worth of products to out-of-province destinations.

The Canadian Market

The market development division carried out an active program in the Canadian market, focusing again on Alberta, British Columbia, Quebec, and Ontario. During 1986-87 efforts of the division involved processed foods and beverages, beef, feeds, and livestock. Several new projects were also launched over the past 12 months.

The processed food market expansion program, designed to promote Alberta food and beverage products in the province, entered its second year. This three-year, $2 million program is comprised of two elements: SIMS (strategy for improved market share), and RAPP (rural agricultural product promotion). An improvement in the sales and marketshare of Alberta products was attributed to the program. This activity is a joint undertaking of Alberta Agriculture and the Alberta Food Processors Association.

The Alberta Food Marketing Advisory Committee continued to provide input to the minister on issues pertaining to the expansion and development of the agriculture and food processing industry.

The market development division assisted 34 Alberta companies attend ARFEX '86, the largest foodservice trade show in Alberta. A trade promotion called the Great Ski Away was carried out during restaurant month in February. Increased sales were reported for Alberta food processing companies involved in these events.

Buyer tours again proved successful in the fresh vegetable and nursery stock sectors. Retail and wholesale buyers were invited to see the variety and quality of products grown in Alberta. New business was realized by growers as a result of these tours, which were organized in co-operation with producer groups. The vegetable tour was carried out jointly with the Alberta Fresh Vegetable Marketing Board. The nursery tour was undertaken with the Landscape and Nursery Trades Association of Alberta.

A study of the opportunities and constraints in Alberta's racehorse industry was completed in 1986-87. This study identified ways to improve breeding and marketing of Alberta racehorses. The division supported "Alberta Breeds for the World" at Spruce Meadows as a means of marketing more Alberta horses in western Canada.

Alberta Agriculture continued its support of the canola crushing industry in an endeavour to increase the usage of canola meal in the domestic market. A long-term nutrition and marketing program was developed in an effort to double the consumption of canola meal in the prairies market.

The market development division prepared a strategy for identifying new product opportunities, maintained industry and trade contacts and carried out market research for companies and associations in the province.

Assistance was provided to companies for the purchase of display materials, test marketing and launching new products.

During 1986-87, Alberta's fine food products were highlighted at the Alberta Pavilion at Expo 86 as well as at regional foodservice shows at Vancouver, Victoria and Cranbrook.

Up to 20 Alberta food processors were featured at successful retail promotions in 92 B.C. Safeway Stores and 46 B.C. Overwaitea Stores, as well as at Food Pacific '86, Canada's first international food show.

Market development efforts in eastern Canada in 1986-87 continued to concentrate on beef sales to Quebec and Ontario. Main efforts were to sustain marketshare in Quebec and enhance business in Ontario and the Maritimes.

Programs in these markets, developed with industry and the Alberta Cattle Commission, emphasized value-added boxed beef for both the retail and foodservice trade. These programs included the certified boxed beef program; "Le Connoisseur", developed with Provigo Inc.; butcher education and in-store promotions with Metro-Richelieu; and exposure of Alberta beef through a major foodservice supplier at the Rendez-Vous Show in Montreal.

Incoming missions to Alberta of key meat buyers/merchandisers from eastern Canada and outgoing missions by Alberta packers and market development staff continued to be supported and organized.

The market development division encouraged and supported several Alberta food companies to attend the Hostex Food Service Show, the first-ever Canadian Food and Beverage Show in Toronto and the Rendez-Vous Show in Montreal. Alberta food products began to make gradual gains in the eastern market because of this exposure.

Alberta Agriculture supported the sale of Alberta livestock genetics through participation in the Canadian Western Agribition in Regina, and the Royal Winter Fair in Toronto. Alberta beef breeding stock continued to attract the interest of potential Canadian and international buyers at Agribition, while participation at the Royal concentrated on the Alberta horse industry, with a view towards an integrated booth operation representing all species of Alberta livestock in 1987. A highlight of the past year was the extremely successful World Sheep and Wool Congress, hosted July 17 to 21 at Edmonton Northlands. It attracted large numbers of participants from Canada, the U.S., Australia, New Zealand and Britain.

Additional support to the domestic livestock sector went to incoming buyers and outgoing missions carried out by individual associations and companies. The division also supported the Calgary and Lloydminster Bull Sales, and international forums held during the Calgary Exhibition and Stampede, and Edmonton Northlands Farmfair.

United States

In 1986, the United States continued to be Alberta's largest foreign market for agricultural and food products, excluding cereal grains. Exports to the U.S. in 1986 were valued at $363 million, a five per cent increase from $346 million in 1985. The primary area of increase was pork products.

Meat at $130 million (beef $50 million and pork $75 million), livestock at $115 million and whiskey at $25 million topped the list. Other products totalled $93 million, and included forage seeds, other crude vegetable products (peat moss) and oilseed cake and meal, and canola oil.

The market development division continued to promote and stimulate red meat exports to the U.S. by supporting Alberta Meat Packers with exposure to the market and the buyers. One major project was co-ordinating Alberta meat packers' participation at the Western States Meat Association Convention in Reno, Nevada; another was the incoming and outgoing missions program for U.S. meat buyers and Alberta packers.

Market development staff continued to take a lead role and support major trade policy issues. Examples of this are the investigation of a reciprocal beef grading system with the U.S.; the present 332 investigations regarding exports of live cattle and beef to the U.S.; and free trade issues concerning U.S. border irritants, tariff and non-tariff barriers and trade on red meats.

The livestock show program continued to be an integral part of efforts to promote the sale of Alberta livestock genetics in the U.S. Alberta Agriculture, in co-operation with the Alberta Canada All Breeds

Association, participated in shows at Madison, Billings, Louisville, Denver and Houston.

The National Cattleman's Association Convention, hosted in Reno, was incorporated into the regular show program, with booth space shared among ACABA, the Calgary Stampede and Edmonton Northlands. Alberta Agriculture assisted with the development of a brochure outlining the objectives and services of ACABA and a brochure promoting international livestock tours of Alberta. Both were used successfully during the past year's activities.

Substantial support was provided to the Alberta canola industry during the past year. Working in close co-operation with the Alberta crushers, a series of 18 individual technical seminars was conducted with refiners and integrated vegetable oil users in the U.S. A canola oil processing short course, involving 16 technical representatives from nine major U.S. companies, was hosted in the early fall at the POS Pilot Plant in Saskatoon and in Edmonton. Follow up visits were made to a number of key U.S. based companies, and Alberta crushers were represented at the Eastern Fats and Oils Conference in New York, and the National Institute of Oilseed Products Convention in Fort Lauderdale. The market development division also developed audio visual presentations covering chemical and physical, sensory, and nutritional properties of canola oil directed at potential activities with U.S. end users of vegetable oils.

Canada West Trading Company, in co-operation with the market development division, held "Taste of Canada" food product promotions in Hawaii, Phoenix, Portland, Seattle and San Francisco. Alberta pork, beef, processed meats and grocery products were featured and the increased sales earned Canada West Trading Company an export achievement award.

In 1986-87, the market development division participated in the following food and trade shows, providing assistance and leadership to Alberta companies:

Minneapolis Solo Food Show
Seattle Solo Food Show
California Grocers Show
Oregon and Washington Potato Conferences
The Polar Horticultural Show in Alaska

The market development division assisted over 40 Alberta food processing companies to obtain U.S. food and drug administration approval for their labels, thereby facilitating earlier access to the U.S. market.

Alberta sales of forage seeds to the U.S. ($17 million in 1986) steadily increased mainly as a result of outgoing and incoming missions.

Alberta Agriculture, in co-operation with Alberta Peat Harvesters Association, completed a marketing study in the western U.S. The main objective of this study was to look at ways peat moss could become more competitive in the retail market and to look at new opportunities for this product. Recommendations from this study were implemented and helped increase sales to $13 million in 1986.

Alberta seed potatoes continued to be a success story with some 500 truckloads worth about $2 million being shipped to the Columbia Basin in Washington State in 1986.

Latin America/Caribbean

The Latin America/Caribbean region continues to grow significantly in terms of its importance to Alberta's exports of agricultural products. Mexico continues as the number 1 market in this region.

The Associate Minister of Agriculture led a livestock mission to Guadalajara, Mexico in October 1986 where a protocol agreement was signed with the Mexican Federal Minister of Agriculture. This agreement focuses on improving the Mexican agriculture industry by using Alberta agricultural products and technology. Canola seed and livestock genetics are the two major Alberta exports to Mexico, with canola seed almost doubling its sales from 1985. Alberta Agriculture conducted a study of major canola crushers in Mexico and recommendations will be implemented to gain a greater share of the oilseed market.

Exports of Alberta pulses have increased, especially in Columbia where significant purchases were made of dried peas, beans and lentils.

Europe, Africa, Middle East

Activities focused on the high priority countries within both eastern and western Europe. In the lower priority countries of Africa and the Middle East, activities were limited to being responsive to market opportunities.

Eastern European country priorities were the U.S.S.R., C.S.S.R. and Hungary. Western European country priorities were Germany, Britain, Denmark, Holland, France, Italy and Spain.

Commodity priorities remained those with realistic volume market potential and included livestock genetics, horse meat, deheated mustard powder, beef offals, leisure horses, dehydrated alfalfa and consulting services.

The U.S.S.R. The January 1986 signing of the Joint Cooperation Protocol between Alberta and the largest of the 15 Soviet Republics, the Russian Republic, resulted in the signing of a supply protocol with an Alberta firm for the purchase of frozen dairy embryos and project protocols for two agricultural consulting projects involving know-how, equipment and supplies.

Participation in two seminars related to canola production and processing were held in the U.S.S.R. during the year.

An eight-man delegation to Alberta from the U.S.S.R. was important to the development of a meat and dairy export program.

Czechoslovakia Highlights were the sale of 80 dairy embryos and the review and offer of a cross-breeding program for high altitude beef cattle production in the Army Forest. Renewed interest in a joint venture swine production project was obtained.

Hungary The Canada-Hungary mixed agricultural commission meetings were held in Alberta in 1986. Successful embryo transplants were conducted and a sale of leafcutter bees was completed. Alberta consulting companies made presentations for upgrading Hungarian agricultural infrastructure.

The European Community Activity within the European Community mainly involved expanding markets for deheated mustard powder, leisure horses, honey, beef and dairy genetics, beef offals, dehydrated alfalfa, horse meat and hay.

A mission was held to update Alberta's dairy industry on the direction and changing needs of the European market.

Drought conditions in parts of Europe, as well as emphasis on continuous cropping, opened market opportunities for hay and dehydrated alfalfa feedstuffs. These opportunities were pursued by Alberta firms.

Japan/Korea

Although primary products such as oilseeds, grains and feedstuffs still accounted for the majority of Alberta's trade with Japan/Korea, the department's expanded presence in Alberta's Tokyo office allowed Alberta to share significantly in Canada's increased trade with Japan in grocery products. As a result, ties with a major Japanese retailer were stengthened and an officer from this company worked in Alberta, directly with Alberta Agriculture, in identifying product and investment opportunities. This activity led to sales of more than $1 million from Alberta.

Prime areas of emphasis were beef, alfalfa products, grocery products, seeds and livestock genetics. The groundwork for a major three-year beef promotion program in Japan was established which complemented Alberta's efforts in promoting the sale of pork and grocery products. Sales of alfalfa products and livestock genetic material were enhanced by the implementation of health and phyto-sanitary protocols between Japan/Korea and Canada which the department was involved in.

Southeast Asia

Interest in Southeast Asia by Alberta's agricultural companies increased greatly in 1986.

Important new areas of economic activity were developed between Alberta and Thailand companies in 1986. For example, an Alberta company found a new market for its processed product while also finding a new source for a high quality raw material it uses. At the same time the Thai company was able to expand its product line and find new export markets in a third country.

Dairy and beef genetics were exported from Alberta to Thailand for the first time. A buyer mission from Thailand visited Alberta on several occasions to observe cattle genetics and place orders.

An agro-industrial corporation in the Philippines, which had sourced all its imported swine genetics from Alberta in the past, placed two more orders in 1986.

Canola meal sales to Indonesia continued at the average rate of 10,000 tonnes per month, a spin-off effect of market development efforts by industry and Alberta Agriculture in recent years.

The market development division worked successfully with consulting companies in identifying several projects for future Alberta involvement.

People's Republic of China

China's interest in Alberta technology and livestock genetics was confirmed by the minister of Agriculture for the People's Republic of China during his visit to Alberta in 1986. In addition to ongoing wheat sales to China, important sales of malting barley were completed to China in 1986.

The division supported livestock missions into northwestern China and introduced proposals for developing their beef industry by utilizing superior Alberta seed stock genetics and management. Staff continued to work closely with Alberta breeders and Chinese officials in order to identify market opportunities.

Alberta Agriculture successfully completed its third year of participation in the QiQihar rangeland improvement project by providing technical transfer of pasture, soil and livestock management skills. Alberta maintains the special relationship established by our twinning with sister province, Heilongjiang.

Hong Kong

Hong Kong was the venue for the "Food and Beverage '87" trade show held in March 1987. Alberta companies that participated successfully expanded their markets into Hong Kong. The Alberta Culinary Arts Foundation was used by the division in order to achieve greater public awareness of quality Alberta products. The foundation was a focus of the trade show and provided Alberta with valuable media coverage.

The market development division worked closely with the Alberta Hong Kong office to complete several hotel and retail promotions of Alberta beef. As a result of this activity, the first-ever major sale of Alberta beef was made to a Hong Kong trading company. The division continued to maintain a program of continued market awareness and penetration of the Hong Kong market with other Alberta products such as cheese, biscuits and jerky.

MARKETING SERVICES DIVISION

Agri-Food Development Branch

During 1986-87 the agri-food development branch provided Alberta-based companies, processors, producer and industry organizations with market information, addressing new market opportunities and development initiatives in meats, cereal grains, animal genetics, dairy products and feedstuffs. The branch also addressed a number of industry issues in both crop and livestock areas. Branch support for producer and industry organizations continued to be a major activity. Greater efforts were directed to market oriented development strategies to increase market sensitivity and enhance opportunities for planned future growth. A number of key industry sectors were assisted with critical problems caused by difficult market conditions. Agribusiness and agricultural processors benefited from programs designed to identify and develop strategies to

improve market access, marketing information and education, and the development of company information/promotion materials. The branch continued to be involved in preparations for bilateral and multilateral trade negotiations which included seeking of industry input.

The branch's activities centred on the delivery of programs and service to three major agricultural areas: crops and feedstuffs, meat and dairy, and livestock — purebred and commercial. The branch continued to act as the liaison between the marketplace and Alberta producers, processors, and industry associations. Assistance was also provided in areas such as: developing market strategies, addressing market access problems, developing marketing tools and capabilities, and organizational development.

The meat and dairy development section of the branch continued to support expanded value-added marketing as both meat and dairy companies increased their export activities. The branch addressed numerous other trade related issues and their impact on Alberta's red meat industry. Staff continued to assess our industry's ability to pursue selective beef and dairy product markets in Pacific Asia and the U.S. A new film entitled *Alberta Beef - Canada's Finest* was completed and has been well received and extensively used by the industry in promoting Alberta beef. A whey utilization study was initiated and the dairy research chair at the University of Alberta was supported. The hog situation caused by the labor strike in Alberta's slaughtering facilities was monitored. An evaluation for the potential of reciprocal beef grading was initiated. Numerous incoming missions, featuring almost all potential export interests, were assisted.

The crop and feedstuffs section undertook development and marketing initiatives to support identified market opportunities involving oats, triticale, canola oil and meal, hay, processed forages, forage seeds and landscape products. Cereal grain upgrading possibilities were pursued and further steps were taken to determine what economical further value-added products might be derived from Alberta's surplus grains. The horticultural industry was helped in developing promotional and market capabilities. In an effort to diversify Alberta's agriculture industry, considerable work was done in the special crops and forage areas. A successful tripartite stabilization program was established to ensure continued viability of the sugar beet industry and the section began to develop a tripartite dry bean stabilization program.

The Alberta Forage Seed Council liaison and co-ordination role is part of the branch responsibility and a new mandate was sought for continuation of the council.

Alberta's livestock genetics industry continued to grow as a key supplier of superior quality genetic material to the world marketplace. World livestock congresses were held in Alberta and the branch hosted numerous incoming missions and visitors interested in Alberta's genetics technology. Work continued to support the growth of frozen embryo and embryo transfer technologies; there were major sales of frozen embryos to Australia, the U.S.S.R. and other international markets. In conjunction with the department's production sector, a major study of opportunities and constraints for development of Alberta's racehorse industry was completed and a major study into improved swine improvement and a genetic marketing system for the future was initiated. The branch worked closely with Alberta livestock groups in breed development and market planning.

The branch participated in interdepartmental discussions in an effort to develop a fresh water aquaculture industry. The farmers' market program was streamlined and formation of an association was encouraged to handle this successful direct marketing program.

In 1986-87 almost $1.5 million in financial assistance was provided to support industry's development and marketing activities.

AGRI-FOOD DEVELOPMENT BRANCH INDUSTRY ASSISTANCE 1986-87 PROVIDED UNDER AGRICULTURAL GRANTS ACT

Sector	No. of Grants	Total
Meat and Dairy Producers and Processors	12	$309,223
Crops and Feedstuffs Producers and Processors	36	437,887
Cattle Breed Associations	22	290,620
Horse Breed Associations	13	111,677
Livestock Shows and Congresses	5	85,000
Semen and Embryo Companies	8	59,825
Other Associations	12	102,235
Farmers' Markets	67	90,516
TOTAL	175	$1,486,983

Food Processing Development Centre

The Food Processing Development Centre, a Heritage Trust funded project, continued to enhance the capability of Alberta's food processing and food service industry to meet the needs of the marketplace through the application of new technology and development of processed products and processes. Industry-oriented requests for scientific and technical information and assistance were undertaken at the centre. Small, medium and large enterprises in the food, feed and beverage sectors were serviced. During the 1986-87 year, over 150 Alberta companies solicited the services and expertise of the centre. The end of fiscal year 1986-87 saw completion of capital equipment expenditures under the Heritage Savings and Trust Fund and installation of food processing equipment, data acquisition and laboratory instrumentation.

The product development laboratories of the centre contained improved equipment and facilities for product feasibility and concept development, prototype formulation, ingredient performance assessment, physical properties evaluation, packaging systems efficacy testing and product stability testing.

The centre's laboratory staff assisted Alberta processors in new product development, existing product refinement or modification, qualifty control/assurance and sensory evaluation. Selected examples of product development activities included:

- Utilization of an innovative membrane technology applicable to dairy processing operations. Specialized pilot plant equipment demonstrated process feasibility and laboratory personnel initiated developmental dairy product applications.
- Development of parameters associated with production of a vegetable juice product. Laboratory information translated to pilot plant production. Client seeking commercialization.
- Development of a variety of canned food products compatible with a self-heating can technology. A unique self-heating convenience meal could be enjoyed without an external heat source. This project entailed formulation development, prototype product(s) demonstration, pre-production process optimization, sensory evaluation and consumer acceptance.
- FPDC personnel in co-operation with the Alberta Cattle Commission developed a series of microwaveable beef entree products.
- Assisted a Calgary-based company in formulation and introduction of pre-packaged slush beverage mixes into the retail marketplace. Product is available in Alberta and British Columbia.
- FPDC personnel continued to provide developmental assistance in the application of innovative packaging technologies, such as modified atmosphere packaging, to a variety of food processors. Packaged products evaluated included fresh vegetables, sandwiches, pasta, bakery products, prepared salads, specialty sauces and meat products.
- Centre food scientist's also assisted in formulation design and commercialization of flavored yogurt, muffins, biscuits, gourmet and low calorie ice cream, fruit juices, flavored honey, specialty sauces, salad dressing, nutritional snack bars, sherbet, quark, licorice, pizza, smoked and cured meat products.

The sensory evaluation laboratory offered a descriptive, difference and preference/acceptance testing service to industrial clients through various

stages of product development, quality control, quality assurance and market research. Over 600 hours, an increase of 50 per cent over 1985-86, were devoted to flavor, odor, color and texture analysis. Taste panelists were solicited from the Leduc and Edmonton area.

The upgraded process development section provided a fully-serviced pilot plant processing facility which enabled food processors to develop and evaluate innovative products and processes. Pilot plant activities facilitated the transfer of laboratory bench-scale information to simulated industrial production operations prior to commercialization in the private sector, identification of product/process compatability, and limited production of finished product for test market and consumer acceptance studies.

Examples of pilot plant operations and activities included:

- assisted a local producer in evaluation of functional characteristics and applications associated with an innovative crumb process technology. Marketplace acceptance of this product in breading formulations and as an active ingredient in processed meat products has been recognized.
- in conjunction with a Japanese food manufacturer, process development staff were involved with Alberta meat processors in establishment of sanitation, temperature control and packaging requirements of shipments of pork and beef cuts to Japan. Pilot plant packaging equipment and expertise were utilized.
- oat groats were processed using an aqueous extraction method into bran and flour fractions for a food manufacturer. Favorable response to quality of oat bran and flour quality, and functionality were received.
- assisted a number of meat processors with formulation and in-plant technical assistance in areas such as formulated meat products, sausage production, specialized forming and restructured meat systems, donair, formulary, smokehouse operations and sanitation audits.

Specialized equipment purchases, possible through the Alberta Heritage Savings Trust Fund, were made to increase the processing technology capabilities of the centre.

The centre continued to provide a technical advisory and information service which involved the acquisition, interpretation and adaption of scientific or technical information to resolve specific industrial problems. FPDC staff responded to approximately 1,500 requests for technical or scientific information in 1986-87. Examples of specific literature requests included: artificial and natural flavors, beverage formulation and production, modified atmosphere packaging technology, bakery products productions, snack foods, confectionary products, specialty sauces, restructured meats and sausage formulations and processing, extrusion technology and food irradiation.

Centre personnel also provided an "on-site" technical advisory and consultative field service to Alberta's food industry. Activities included: trouble-shouting processing operations, process equipment specification and selection, process optimization and plant start-up. Examples included: monitoring food extruder power consumption patterns, process control modifications of packaging equipment, plant start-up of a salad dressing operation and quality assurance program of licorice production.

The centre, in joint partnership with two local food processors, participated in three Farming for the Future projects by providing specialized expertise and processing equipment.

The centre hosted various current awareness seminars and workshops to assist Alberta processors. Topic presentations included sensory evaluation techniques, sausage manufacture, food extrusion, irradiation and packaging technologies.

The centre also hosted numerous international trade and scientific/technical missions and visitors.

Business Analysis Branch

During 1986, the business analysis branch continued its role in supporting Alberta's agribusiness sector by providing: financial analysis and evaluation of individual assistance requests under specific department programs, and by providing consultative assistance in the areas of business and financial management.

The majority of the branch's workload continued to be in providing analytical and audit support to the rural

development division's Nutritive Processing Agreement (now expired) and the new Canada/Alberta Subsidiary Agreement on Agricultural Processing and Marketing (APMA). Given program changes, activity in this area increased considerably. In 1986-87, the branch completed evaluations resulting in 117 offers of assistance totally $9,826,647 on $42,802,585 of approved costs. Most of these projects involved the analysis of proposed capital developments in the agricultural processing sector, however some related to the new feasibility study and research and development segments of APMA. In addition to these evaluations, the branch also completed 113 inspections on approved NPA/APMA projects resulting in $5,562,291 of program disbursements.

Financial analysis support was also provided to the community services branch for their agricultural societies capital grant/loan guarantee program and to other branches on specific projects.

In the area of consultative support, a number of small projects were undertaken providing assistance to other branches/sectors and to new and developing agribusinesses. Individual projects included assisting with the development and testing of audit procedures for the Alberta feed grain market adjustment program's grain merchant audits, as well as providing management support to existing and prospective processors in the areas of budgeting, capital investment analysis and capital sourcing.

Agricultural Processing Development Branch

During the 1986-87 fiscal year, the agricultural processing development branch continued to expand developmental support to Alberta's agri-processing industries through the manpower and fiscal resources of the three sections of the branch. The branch also liaised and supported the market development division and other branches of the marketing services division to ensure fully integrated program delivery to industry.

The industry development section continued liaison with interdepartmental municipal and private agencies to explore prospects to establish and expand agri-processing industries in Alberta. A major study was undertaken to identify opportunities to foster growth and development of Alberta's agri-processing industry over the next decade. Effort was maintained in compiling an index of advanced technologies pertinent to the development of new products and processes applicable to the agri-processing industry.

The processed food development section provided detailed support to Alberta's food processors. Professional assistance was directed at packaging and labelling, company marketing planning, and development of new and approved products and product identification materials. Companies were sourced and assisted for participation in trade shows and missions. Seminars for food processors were provided and three new manuals were produced — an updated guide of Alberta's food processors, a manual for new food processors, and a packaging and labelling information manual. Consultations with potential new food processors increased with approximately 30 enquiries per month. Staff assistance to the Alberta Food Processors Association continued.

The process engineering section provided a wide range of technical assistance to agri-processors covering technology awareness, equipment selection and evaluation, site selection, capital cost estimates; and economic feasibility assessments. More emphasis was given to evaluating processing opportunities yielding value-added products from agricultural raw materials. Ongoing collaborative studies were initiated on ethanol production, oats fractionation, wheat germ oil extraction, tallow derivatives processing, and super-critical extractions from a variety of agricultural raw materials.

Overall emphasis of the branch continued to be placed on basic developmental support to agri-processors. Formal company contacts were continued on a monthly basis and many more preliminary contacts and enquiries were provided on a day-to-day basis. Grants totalling approximately $820,000 were administered during the year in support of agri-processing industry development programs.

Food Laboratory Services Branch

The food laboratory services branch carried out programs to ensure high standards of quality and hygiene throughout all stages of the Alberta food system. The branch, through its laboratories in Edmonton and Airdrie, provided analytical and advisory services to all sectors of the Alberta food industry, hospitals and health care institutions and various government branches concerned with food production, animal breeding, processing, quality, safety, nutritional value, inspection, exports and retail trade.

In addition to various chemical, microbiological and organoleptical analyses of foods, the food laboratories analysed 27,620 random milk samples for the presence of antibiotic residues which can present serious health problems to consumers; only 0.21 per cent of these samples were positive. No antibiotic residues were detected in any of the 4,805 samples of Alberta processed dairy products examined. Samples of meat and honey also were checked for the presence of antibiotics and sulfa drugs.

A total of 668 food products and other agricultural commodities were analysed for the presence of pesticides, herbicides, PCB's and other toxic contaminants. All random samples examined were found to be within the acceptable level.

From April 1, 1986 to March 31, 1987, the food laboratory services branch received 686,454 samples of foods, food ingredients and various other agricultural commodities. A total of 2,365,677 tests were performed on these samples.

The accompanying graph illustrates the number of samples submitted to the food laboratories and number of analyses performed during the past six years.

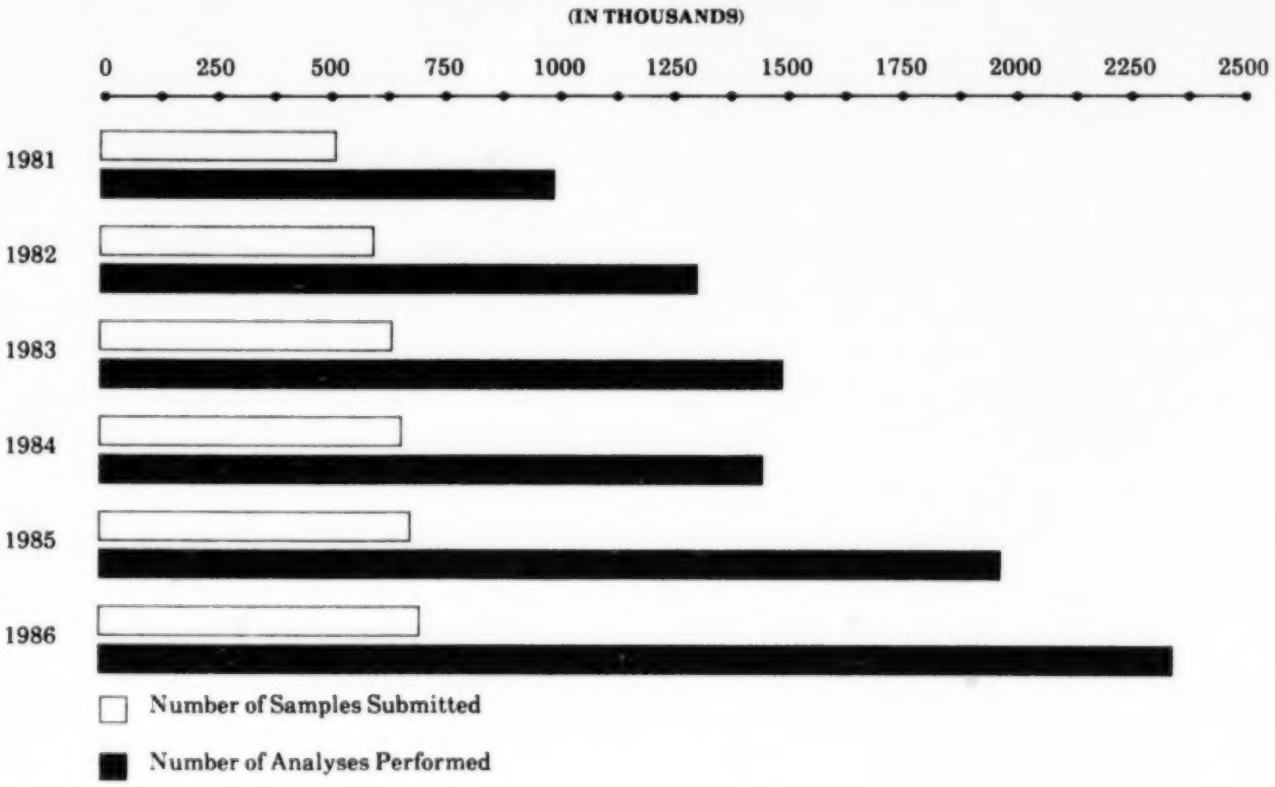
The following table indicates the number and type of samples received at the Edmonton and Airdrie laboratories and the number of analyses performed during the 1986-87 fiscal year. The number of samples analysed and number of analyses performed during the previous year are indicated in brackets.

SAMPLES RECEIVED AND ANALYSES PERFORMED BY THE FOOD LABORATORIES IN EDMONTON AND AIRDRIE APRIL 1, 1986 to MARCH 31, 1987

(figures in brackets are for the previous 12 month period)

	No. of Samples Analysed		No. of Analyses Performed	
Milk and Cream	30,066	(37,870)	174,724	(176,965)
Butter	203	(149)	1,758	(994)
Cheese	2,250	(2,298)	10,626	(9,811)
Ice Cream	3,410	(3,633)	8,201	(8,737)
Dry Milk	311	(74)	202	(69)
Processing Plant Survey	477	(422)	2,156	(1,815)
Honey	750	(166)	1,729	(944)
Washing and Sanitizing Agents	11	(—)	20	(—)
Water	788	(447)	2,273	(1,466)
Eggs	1,477	(957)	2,011	(1,753)
Meat	2,188	(1,900)	11,305	(8,400)
Vegetables	389	(542)	1,419	(2,101)
Fish and Wildlife	324	(262)	1,289	(1,226)
Cereal Products and Forage	495	(427)	1,904	(1,805)
Human Specimens	62	(95)	68	(100)
Soil	136	(78)	177	(83)
Research and Collaborative Studies	236	(450)	249	(453)
Miscellaneous Foods	2,720	(2,473)	10,036	(10,282)
Central Milk Testing	640,162	(618,666)	2,135,530	(1,745,696)
TOTALS	686,454	(670,909)	2,365,677	(1,972,609)

NUMBER OF SAMPLES SUBMITTED AND NUMBER OF ANALYSES PERFORMED BY THE FOOD LABORATORY SERVICES BRANCH DURING THE PAST SIX YEARS



NUMBER OF ANALYSES PERFORMED BY THE FOOD LABORATORY SERVICES BRANCH DURING THE PAST SIX YEARS

1981	526,111
1982	587,039
1983	617,922
1984	664,627
1985	670,909
1986	686,454

NUMBER OF SAMPLES SUBMITTED TO THE FOOD LABORATORY SERVICES BRANCH DURING THE PAST SIX YEARS

1981	1,100,489
1982	1,289,835
1983	1,485,184
1984	1,460,891
1985	1,972,609
1986	2,365,677

RURAL DEVELOPMENT

1986-87 was the first full year of operation for the Canada-Alberta Agricultural Processing and Marketing Agreement.

This $50 million agreement, signed under the Canada-Alberta Economic and Regional Development Agreement, is jointly administered by Alberta Agriculture and the Department of Regional Industrial Expansion.

The program provides financial incentives to agricultural and food value-adding and marketing projects. In 1986-87 over 600 applications for assistance were received. Direct incentives of $5,562,291 were made to 113 different projects of which 77 projects were carried forward from the Canada-Alberta Nutritive Processing Agreement. In addition, 117 offers of assistance were made for a total of $9,826,647 as shown in the accompanying table.

PROJECTS OFFERED SUPPORT UNDER APMA IN 1986-87

Facility	Number of Projects	Amount
Alfalfa	3	$ 384,610
Bio-technology	2	953,454
Bakery	18	896,732
Dairy	7	207,779
Feeds	10	1,147,846
Labels/Containers	1	115,030
Meat	27	981,947
Specialty Seeds	3	59,822
Vegetables	10	657,251
Misc.	36	4,422,176
TOTAL	117	$9,826,647

TRADE POLICY SECRETARIAT

The Trade Policy Secretariat was formed in 1986-87 to provide an ongoing evaluation of national and international trade developments as they affect the agriculture and food sector. The secretariat was also formed to develop appropriate trade programs and policies, and to provide assistance to industry on trade legislation and litigation.

The Canada-U.S. bilateral trade negotiations were a primary focus during the year. Activities included the preparation of nine discussion documents for consultations with Alberta's agriculture and food industry about the negotiations and the concept of freer trade. Department and industry interests were represented by both federal and other provincial trade representatives, as well as the office of the Alberta trade representative. The Trade Policy Secretariat provided briefs to ministers and officials on agricultural interests and development in the negotiations.

The Uruguay Round of the General Agreement on Tariffs and Trade (GATT) was initiated during the year. Agriculture was allocated as a separate and distinct area for negotiation under the multilateral trade negotiations. The secretariat prepared input on the agricultural aspects for participating Alberta officials. Developments in world markets and trade policies were monitored and documented in support of submissions of the Government of Alberta.

There were a number of trade actions which affected the Canadian agriculture and food industry in 1986-87 that also directly or indirectly affected Alberta's industry. The secretariat was directly involved in providing information, advice and research support for industry in defending or alternately, pursuing trade actions or litigation. Canadian industry actions addressed beef and dried pasta imports from the European Community; grain corn and yellow onions from the U.S.; and fresh lamb from Australia and New Zealand. Actions taken against the Canadian agriculture and food industry included a U.S. investigation of the competitiveness of Canadian cattle and beef trade; a U.S. review of the countervail duty on live hogs imports from Canada; U.S. quotas on sugar-containing products and a U.S. countervail action against cut flowers from Canada and a number of other countries. The secretariat also participated in impact assessments and recommendations concerning programs in other countries affecting Alberta exports, such as the export enhancement program, user fees on imports and meat inspection regulations in the U.S.

Liaison was maintained with the Alberta and Canadian public and private trade interests with respect to the Canada-U.S. bilateral trade negotiations, the GATT multilateral trade negotiations and trade in general.

APPENDIX

Acts Administered by Alberta Agriculture

Agricultural Operation Practices Act
Agricultural Pests Act
Agricultural Service Board Act
Agricultural Societies Act
Agrologists Act
Alberta Agricultural Research Trust Act
Animal Protection Act
Artificial Insemination of Domestic Animals Act
Bee Act
Beet Lien Act
Brand Act
Crop Liens Priorities Act
Crop Payments Act
Crop Payments (Irrigated Land Sales) Act
Dairy Board Act
Dairy Industry Act
Department of Agriculture Act
Farm Implement Act
Federal-Provincial Farm Assistance Act
Feeder Associations Guarantee Act
Fur Farms Act
Hail and Crop Insurance Act
Harvesting Liens Act
Horned Cattle Purchases Act
Irrigation Act
Irrigation Land Manager Act
Line Fence Act
Livery Stable Keepers Act
Livestock Diseases Act
Livestock Identification and Brand Inspection Act
Livestock Injury Act
Livestock and Livestock Products Act
Margarine Act
Marketing of Agricultural Products Act
Meat Inspection Act
Seed-control Areas Act
Seed Grain Purchase Act
Soil Conservation Act
Stray Animals Act
Surface Rights Act
Threshers' Lien Act
Vegetable Sales (Alberta) Act
Veterinary Profession Act
Weed Control Act
Wheat Board Money Trust Act

ALBERTA LEGISLATURE

OFFICE OF THE AUDITOR GENERAL

AUDITOR'S REPORT

To the Minister of Agriculture

I have examined the balance sheet of the Wheat Board Money Trust Account as at March 31, 1987 and the statement of revenue, expenditure and unexpended funds for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Trust Account as at March 31, 1987 and the results of its operations for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Donald D. Salmon
C.A.
Auditor General

Edmonton, Alberta
June 30, 1987

WHEAT BOARD MONEY TRUST ACCOUNT

Balance Sheet as at March 31, 1987

ASSETS	1987	1986
Cash	$ 70,289	$ 72,915
Accrued interest	1,419	1,420
Investments (Note 3)	52,988	52,984
	$124,696	$127,319
UNEXPENDED FUNDS		
Unexpended funds	$124,696	$127,319

Statement of Revenue, Expenditure and Unexpended Funds for the Year Ended March 31, 1987

REVENUE	1987	1986
Interest and amortization of discounts	$ 9,777	$ 10,590
EXPENDITURE		
Scholarships and bursaries	12,400	12,000
Excess of expenditure over revenue	2,623	1,410
Unexpended funds at beginning of year	127,319	128,729
Unexpended funds at end of year	$124,696	$127,319

Notes to the Financial Statements as at March 31, 1987

Note 1 **Authority**
The Wheat Board Money Trust Account operates under the authority of the Wheat Board Money Trust Act, Chapter W-7, Revised Statutes of Alberta 1980.

Note 2 **Changes in Financial Position**
A statement of changes in financial position is not provided as disclosure in these financial statements is considered to be adequate.

Note 3 **Investments**
Investments consist of the following:

	1987		1986	
	Amortized Cost	Market Value	Amortized Cost	Market Value
Debentures:				
Province of Alberta, direct and guaranteed	$52,988	48,558	$52,984	$45,370

Note 4 **Administration Costs**
Salaries, accommodation and other overhead costs incurred in the administration of the Fund have been borne by the General Revenue Fund and are not reflected in these financial statements.

Note 5 **Approval of Financial Statements**
These financial statements have been approved by management.